

Ontario
Water Resources
Commission

May 1971

INTERIM PROVINCE OF ONTARIO CONTINGENCY PLAN

For spills of oil and other hazardous materials

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INTERIM

PROVINCE OF ONTARIO CONTINGENCY PLAN

for

SPILLS OF OIL AND OTHER

HAZARDOUS MATERIALS

Hon. G.A. Kerr, Q.C. Minister

R.D. Johnston Chairman

D.S. Caverly General Manager

May, 1971

ONTARIO WATER RESOURCES COMMISSION



Environment Ontario

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ONTARIO OPERATIONS CENTER

(416) 365-2537 (24 hrs.)



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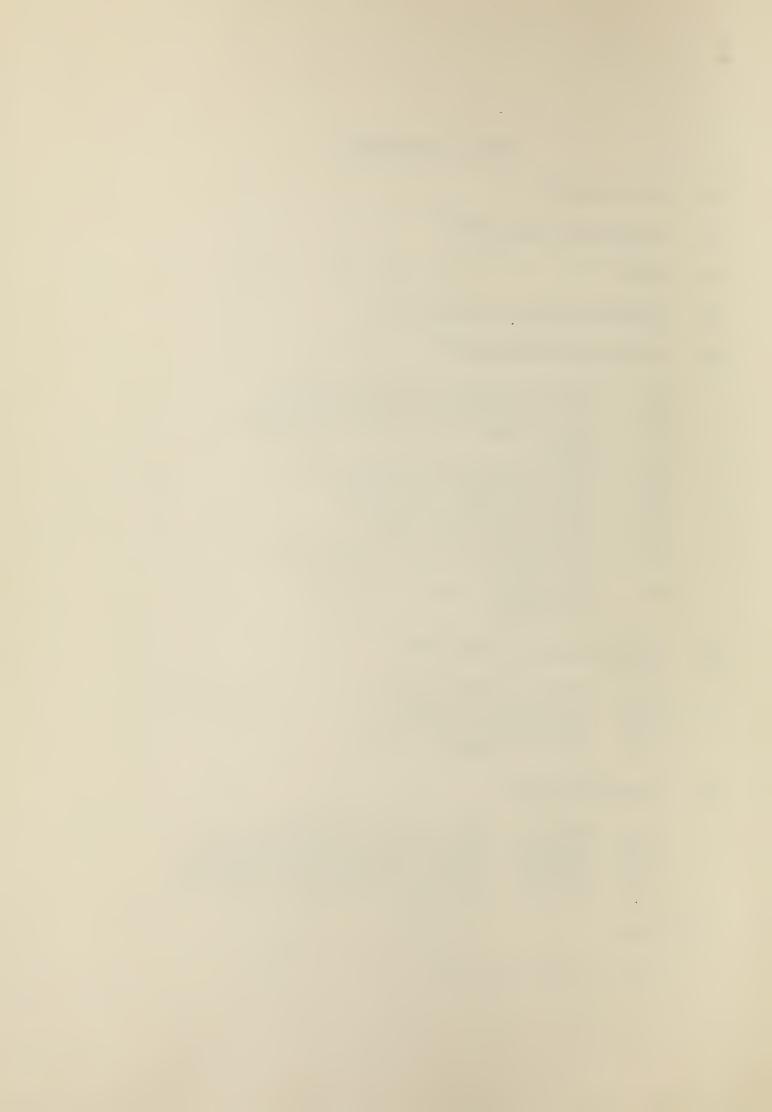
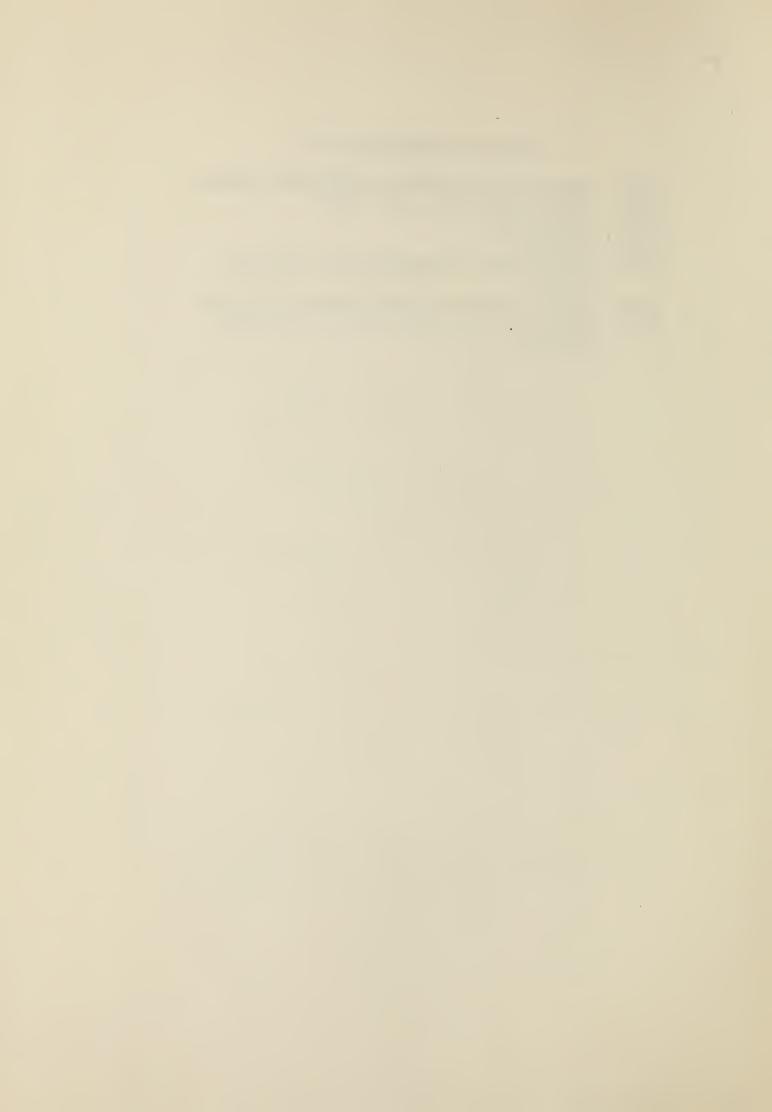


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100 INTRODUCTION

- materials calls for positive co-ordinated action for the notification, control, containment and clean-up of spills. Incidents such as the Torrey Canyon, Ocean Eagle, Santa Barbara and the Arrow emphasize the importance for co-ordinated response capabilities to deal with such disasters.
- and industry, the Ontario Water Resources Commission developed the "Province of Ontario Contingency Plan for Spills of Oil and Other Hazardous Materials". The Ontario Contingency Plan outlines the response procedures for spills of oil and other hazardous materials in the Ontario portion of the Great Lakes System. The basic notification framework and resources described in the plan are used also by the OWRC in the event of spills in the inland waters of the drainage basin and elsewhere in the province.



101 PURPOSE AND OBJECTIVES

- 101.1 The purpose of the "Province of Ontario Contingency
 Plan for Spills of Oil and Other Hazardous Materials" is to outline
 a mechanism for:
 - (a) the discovering and reporting of spills
 - (b) alerting and co-ordinating the resources including manpower materials and equipment to control and clean-up spills
 - (c) establishing financial liability for the cost of clean-up operations.
- ordination of resources provided by municipalities, industries and others under the command of a predesignated OWRC official, to mitigate the effects of a major spill of oil or other hazardous material which occurs in the waters of Ontario.
- 101.3 Under the plan, the development of local contingency measures, either individually or co-operatively, is encouraged. Appendix

lists the local contingency plans developed to date and the principal contact with respect to these plans. It is expected for spills of lesser magnitude, that these local plans will be able to cope with the orderly clean-up of the spill and the OWRC in such situations would act only in an advisory capacity.



101.4 Recent amendments to the OWRC Act make it mandatory that all spill incidents be reported to the Commission.

The Province of Ontario Contingency Plan details the notification system for spill reports and their subsequent assessment for possible further action.

102 SCOPE

102.1 The Ontario Contingency Plan encompasses all navigable and non-navigable waters of Ontario including the Great Lakes, their tributaries and other bodies of water in Ontario.

103 ABBREVIATIONS AND DEFINITIONS

103.	1	Agency	mitles.
105.	1	Adency	Tilles

CCIW - Canada Center for Inland Waters

CMOT - Canada Ministry of Transport

DHO - Ontario Department of Highways

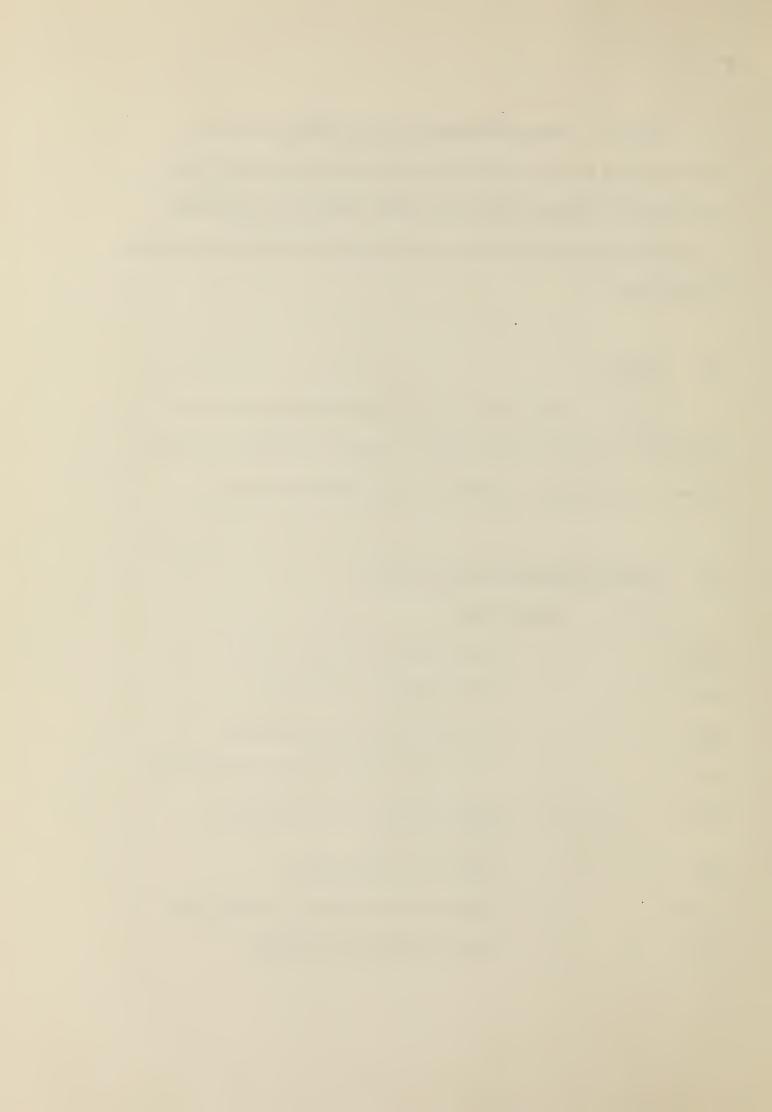
ODLF - Ontario Department of Lands and Forests

ODM - Ontario Department of Mines and
Northern Affairs

OPP - Ontario Provincial Police

OWRC - Ontario Water Resources Commission

ODH - Ontario Department of Health



103.2 Operational Titles

OCP - Province of Ontario Contingency Plan (Ontario Contingency Plan)

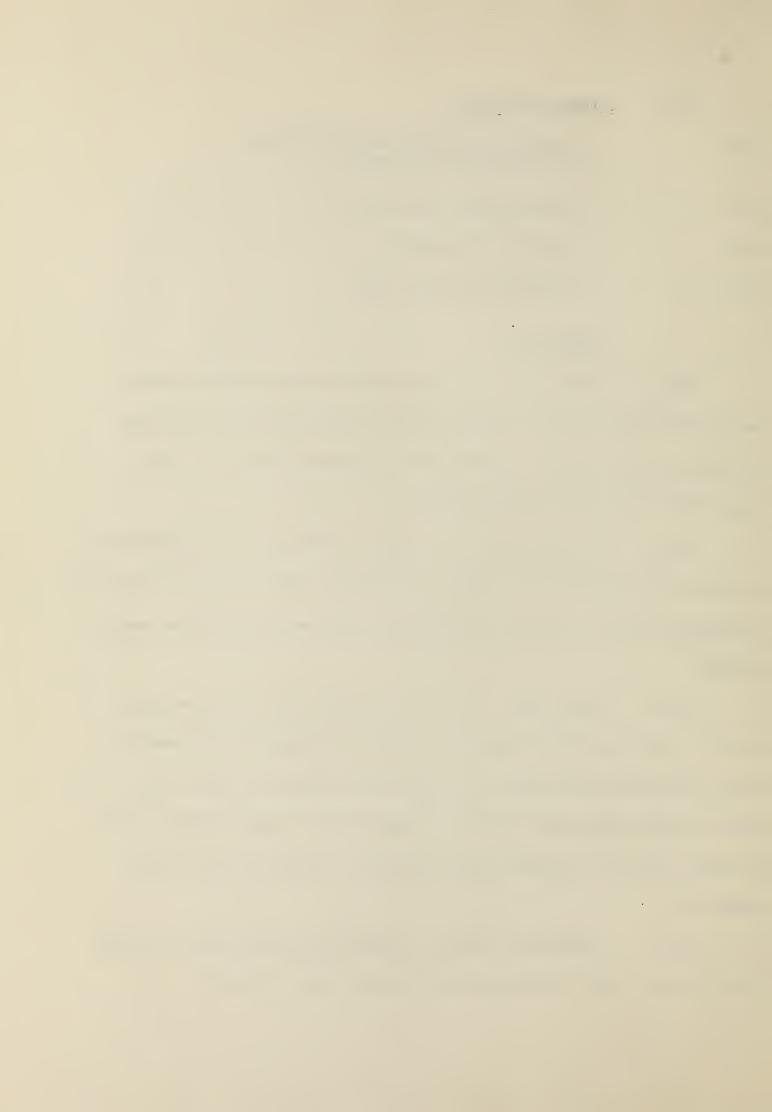
OOC - Ontario Operations Center

OSC - On-Scene Commander

ROT - Regional Operations Team

Definitions

- Minor spill is a spill incident of oil or other hazardous material of such magnitude in which the party responsible for the spill can, utilizing its own resources, undertake the necessary measures to control, contain and clean-up the material spilled.
- Moderate spill is a spill incident of oil or other hazardous material of such magnitude in which the resources under a local or co-operative contingency plan are required to effectively contain and clean-up the material spilled.
- material of any magnitude requiring resources in addition to those available under a local contingency plan, or a spill which gets out of control when action is being taken under a local contingency plan. Implementation of the Province of Ontario contingency plan would become effective under these conditions.
- 103.6 Hazardous material is matter of any description or origin other than oil, which when discharged into any waters, presents



an imminent hazard to public health or welfare, or fish and wildlife.

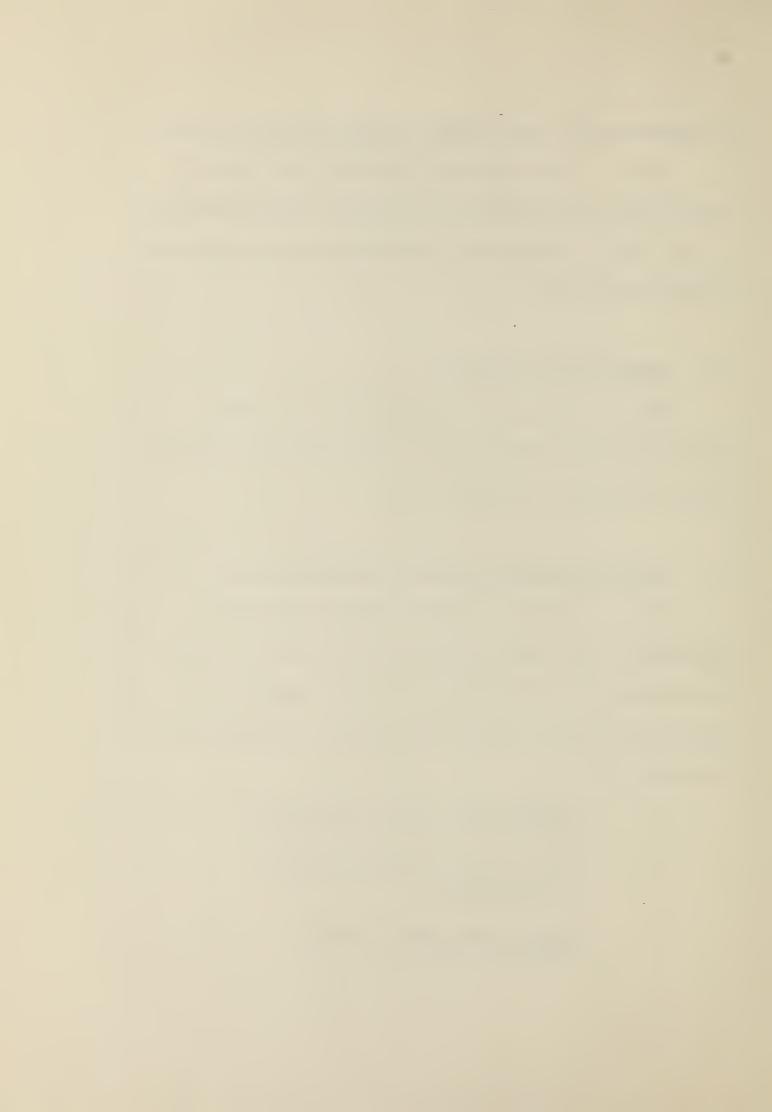
103.7 Oil - means oil of any kind or in any form and without limiting the generality of the foregoing, includes petroleum fuel oil, sludge, oil refuse and oil mixed with wastes but does not included dredged spoil.

200 AGENCY RESPONSIBILITIES

200.1 The Ontario Contingency Plan is designed to operate through the Ontario Operations Center in co-operation with other government and industrial agencies.

201 ONTARIO WATER RESOURCES COMMISSION (OWRC)

- 201.1 The Ontario Water Resources Commission is responsible for water pollution abatement in the province and has taken the lead role in the development of a multi-agency plan to deal with spills into the waters of the province. Accordingly, the Commission will:
 - undertake the command operations in the event of a major spill in Ontario
 - provide technical advice on aspects of water pollution
 - alert all water users who may be affected by a spill

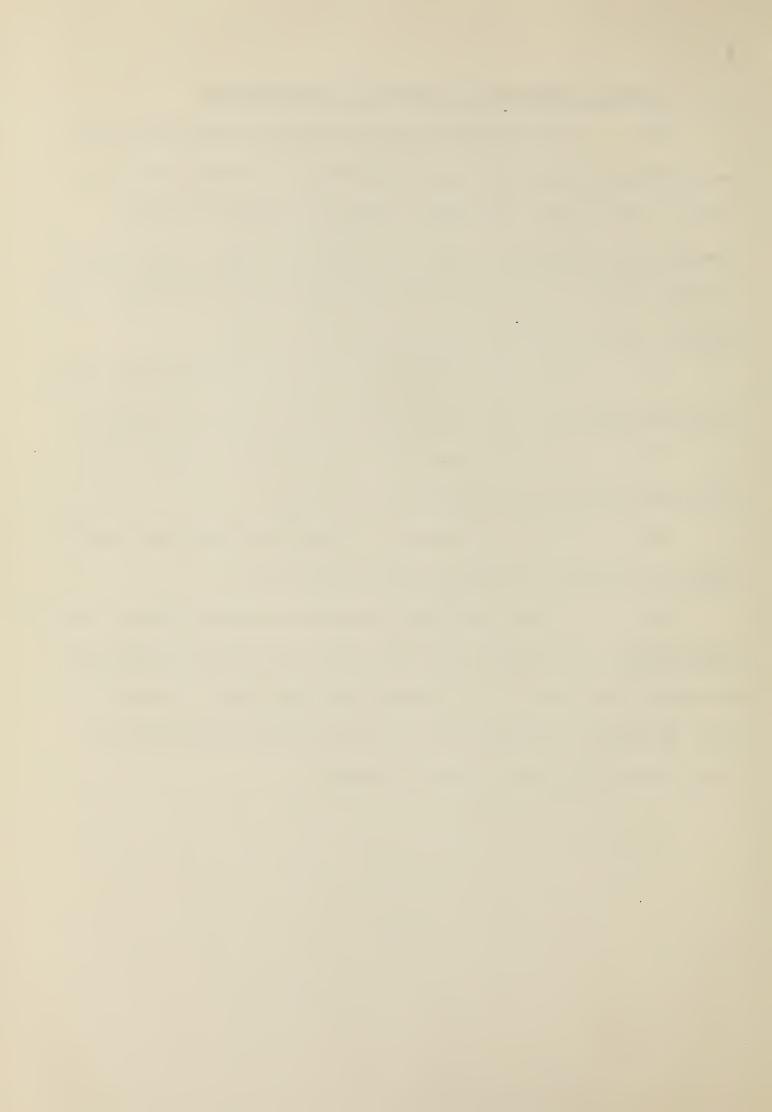


- provide liaison with other concerned
 persons and government authorities in
 Canada and the United States
- carry out a continuous evaluation of chemicals and maintain up-to-date information on other equipment for use in controlling and containing oil spills and distribute this information to interested parties
- provide a public relations officer to prepare news releases on the spill and maintain liaisons with the news media and the public-at-large.



202 ONTARIO DEPARTMENT OF LANDS AND FORESTS (ODLF)

- 202.1 The Department of Lands and Forests is responsible for the preservation of fish and wildlife and the supervision of forestry resources in Ontario. The role of the Department of Lands and Forests in the Ontario Contingency Plan is currently under development. It is expected that this role will take advantage of the Department's specialized skills and resources. Until such time as the Department has finalized its plan, it will;
- 1) through the District Forester assist the OSC in an evaluation of biological implications of proposed containment and clean-up procedures.
- 2) utilize the Department's communications system to relay information to other government agencies and industry.
- 3) provide surveillance i.e. through aerial flights any signs of spills may be spotted or maintain surveillance of a slick.
- 4) provide an "Oil Strike Force" which will have limited containment capability. The function of the strike force will be to assist districts in preventing contamination of the shoreline in provincial parks, in wilderness areas, at departmental installations and at other locations threatened by oil slicks as well as protection of fish and wildlife.



203 ONTARIO DEPARTMENT OF MINES AND NORTHERN AFFAIRS (ODM & NA)

203.1 Through its Petroleum Resources Section, the

Department of Mines and Northern Affairs administers the regulation

of exploration and drilling procedures, licences and inspects drilling
and production facilities in Ontario, including those located in Lake

Erie.

- 203.2 The Petroleum Resources Section will:
- provide the technical expertise with respect to oil and gas well drilling operations,
- alert oil and gas well drilling operators in the vicinity of an oil spill,
- assume the command operations necessary to shut off the source of oil or gas in the event of an oil or gas well spill incident.



204 ONTARIO DEPARTMENT OF HEALTH (ODH)

- 204.1 The Ontario Department of Health is responsible for land and water pollution abatement with respect to private systems in the province through the Public Health Engineering Service. The Department will:
 - provide co-ordination with local health agencies
 - arrange for the provision of medical advice
 - assist the on-scene commander.
 - provide engineering advice with respect to Public Health Engineering.



205 OTHER GOVERNMENT DEPARTMENTS

205.1 Ontario Provincial Police (OPP)

to provide assistance in emergency communications as may be required.

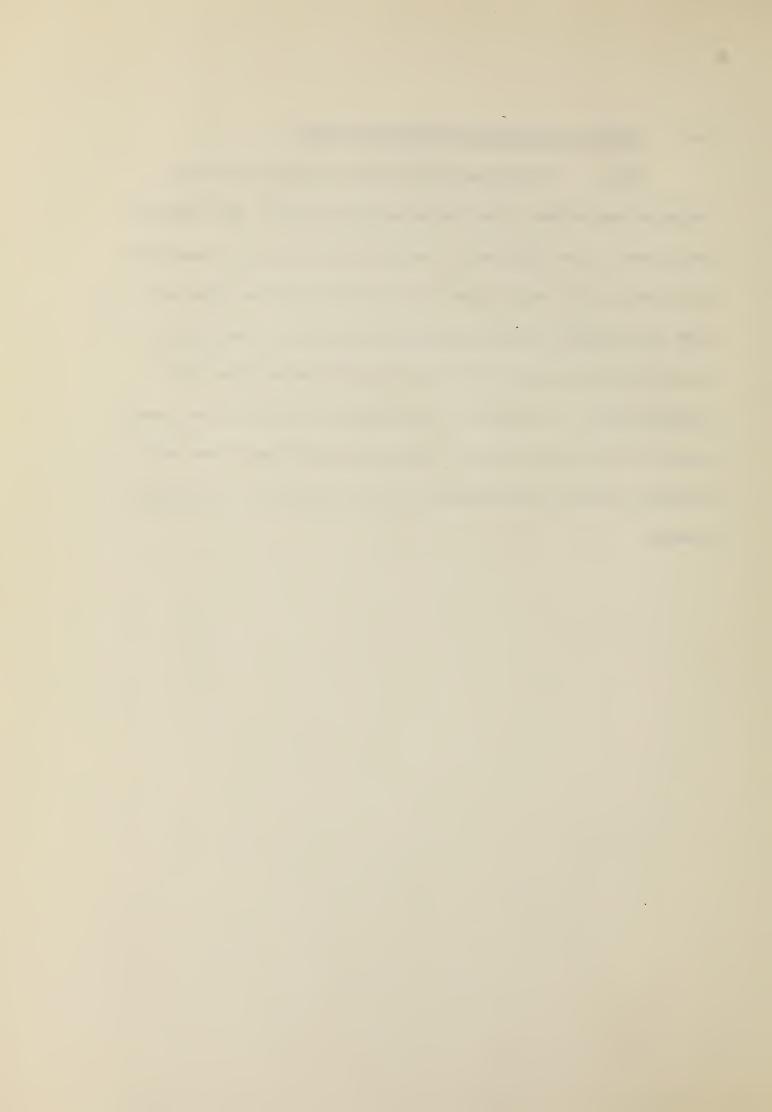
205.2 Ontario Department of Highways (DHO)

- to provide equipment and material in the form of mulchers, straw and peat moss, as may be required.



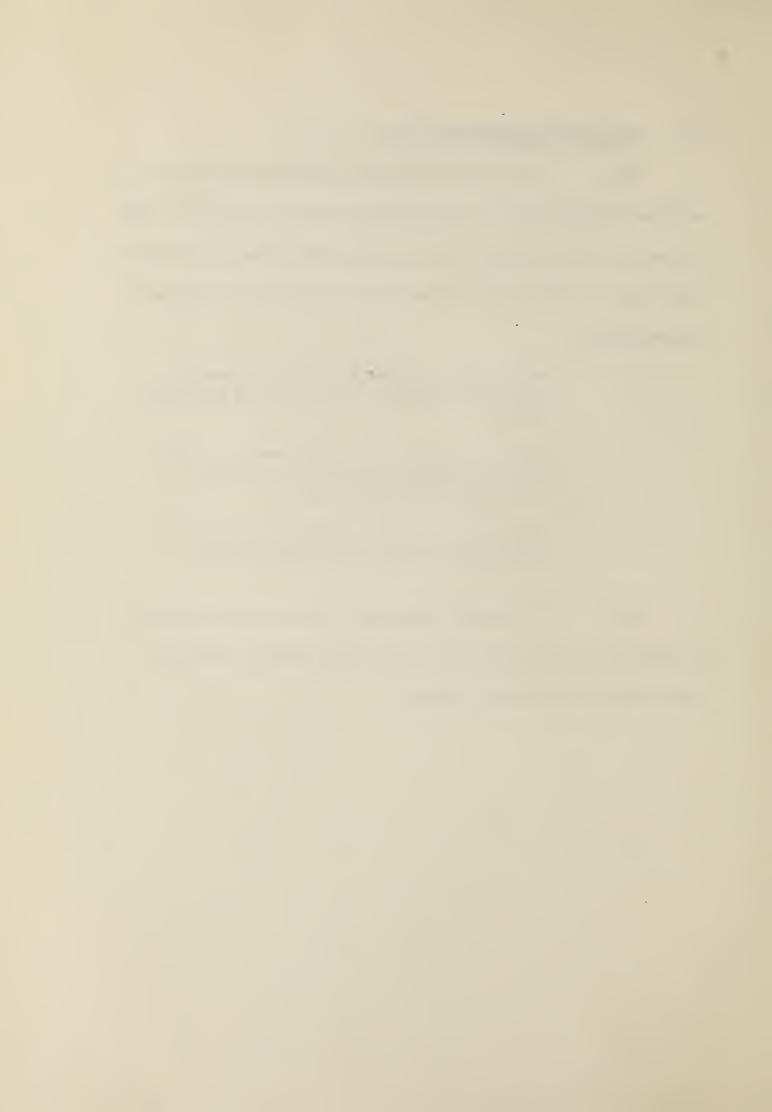
206 CANADA MINISTRY OF TRANSPORT (MOT)

Pollution Regulations under the Canada Shipping Act. The Ministry has power to take action to prevent pollution that may be caused by the release of the cargo or fuel from a ship in distress. The Act also contains provisions prohibiting the pollution of water by oil discharged from a ship and the provisions for prosecution of the offending party. The Ministry also maintains a fleet of coast guard vessels on the Great Lakes as well as helicopters and fixed-wing aircraft to enforce the provisions of the Act during the navigational season.



207 FEDERAL CONTINGENCY PLAN

- and Toxic Material Spills is designed to operate in conjunction with the Province of Ontario and the U.S. Contingency Plans in the Great Lakes Region. The Federal Plan will be invoked under the following circumstances:
 - 1. Major spills in which the province requests federal assistance as back-up to the provincial response.
 - 2. Spills from ships on the open water in which case the primary response will be through the Federal Contingency Plan.
 - 3. Spills which cross or threaten to cross the international boundary in either direction.
- 207.2 The Federal Contingency Plan is co-ordinated in the Great Lakes Region by the Director of the Canada Center for Inland Waters in Burlington, Ontario.



208 INTERNATIONAL CONTINGENCY PLAN FOR GREAT LAKES

under the jurisdiction of an International Contingency Plan currently under development. The resources detailed in the province of Ontario Contingency Plan will be available through the OWRC which will be represented on the Joint Response Team of the International Contingency Plan.



209 THE CANADIAN CHEMICAL PRODUCERS' ASSOCIATION (CCPA)

- 209.1 The Canadian Chemical Producers' Association has developed a "Transportation Emergency Assistance Plan" (TEAP). This plan was designed to provide response capabilities in the event of a spill of hazardous material during transportation.
- 209.2 Under this plan the CCPA has established four Regional Control Centers (Appendix X100) which are staffed 24-hours per day and are equipped to provide technical advice and assistance in the event of a chemical spill in order to minimize danger to public health and the environment. The Regional Control Center can provide specialized equipment and manpower if a chemical spill incident is involved.



300 ORGANIZATION AND FUNCTION

301 ONTARIO OPERATIONS CENTER (OOC)

301.1 The ONTARIO OPERATIONS CENTER is staffed by the Ontario Water Resources Commission at 135 St. Clair Avenue West, Toronto, Ontario, phone 24 hours - (416) 365-2537.

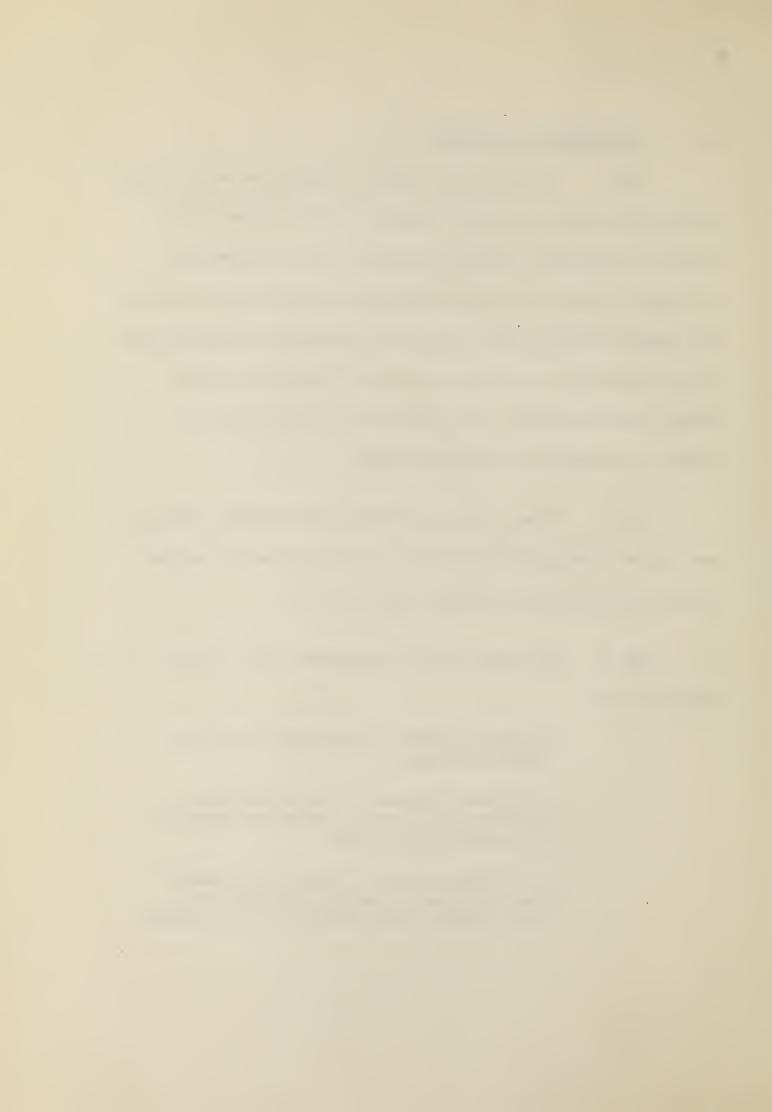
301.2 The functions of the OOC are as follows:

- to act as the focal point for all reports concerning the spill of oil and other hazardous materials,
- to advise other agencies and persons who may be affected by a spill,
- to maintain and inventory of materials, chemicals,
 etc. to be used for control of oil spills,
- to maintain up-to-date technical information on oil spills,
- to implement the Ontario Contingency Plan as required.
- 301.3 In the event the Ontario Contingency Plan is implemented, the ONTARIO OPERATIONS CENTER will provide the following:
 - communication with the Regional Operations
 Team and affected water users,
 - technical advice and information on combatting spills.



302 ON-SCENE CO-ORDATION

- 302.1 In the event of a spill, it will be the responsibility of the person causing the spill to notify the OOC. If the spill is minor or moderate the resources under the local or co-operative contingency plans will generally be adequate to contain and clean-up the material spilled, and the designated On-Scene Commander (OSC) will be available as an advisor to the local contingency group. Regular progress reports of the clean-up operations should be made to the ONTARIO OPERATIONS CENTER.
- 302.2 When a major spill occurs and additional resources are required, the predesignated On-Scene Commander will assume control of all on-scene pollution control activities.
- 302.3 The duties of the predesignated OSC and his alternate are:
 - to become familiar with potential spill areas within his district
 - to formulate an operations team with representatives of the various government agencies and industry for his region
 - to meet regularly with the regional operations team to evaluate response capabilities and assign specific responsibilities to each member.



- 302.4 In the event of a major spill the OSC will:
- direct the employment of needed resources in accordance with this plant to initiate and continue containment, countermeasures, clean-up, restoration and disposal functions.
- mobilize the Regional Operations Team and direct the ROT to ensure adequate protection of the environment from pollution damage.
- with the assistance of the ROT, make regular reports to the ONTARIO OPERATIONS CENTER.
- co-ordinating the acquisition of manpower,
 equipment and other resources.
- act in co-operation with public relations representatives of the agencies involved as the focal point for information releases concerning the spill.



303 REGIONAL OPERATIONS TEAM (ROT)

Team" which will be activated upon implementation of the Ontario Contingency

Plan. It will consist of representatives of the Ontario Water Resources Commission, Ontario Department of Mines and Northern Affairs, Ontario Department of

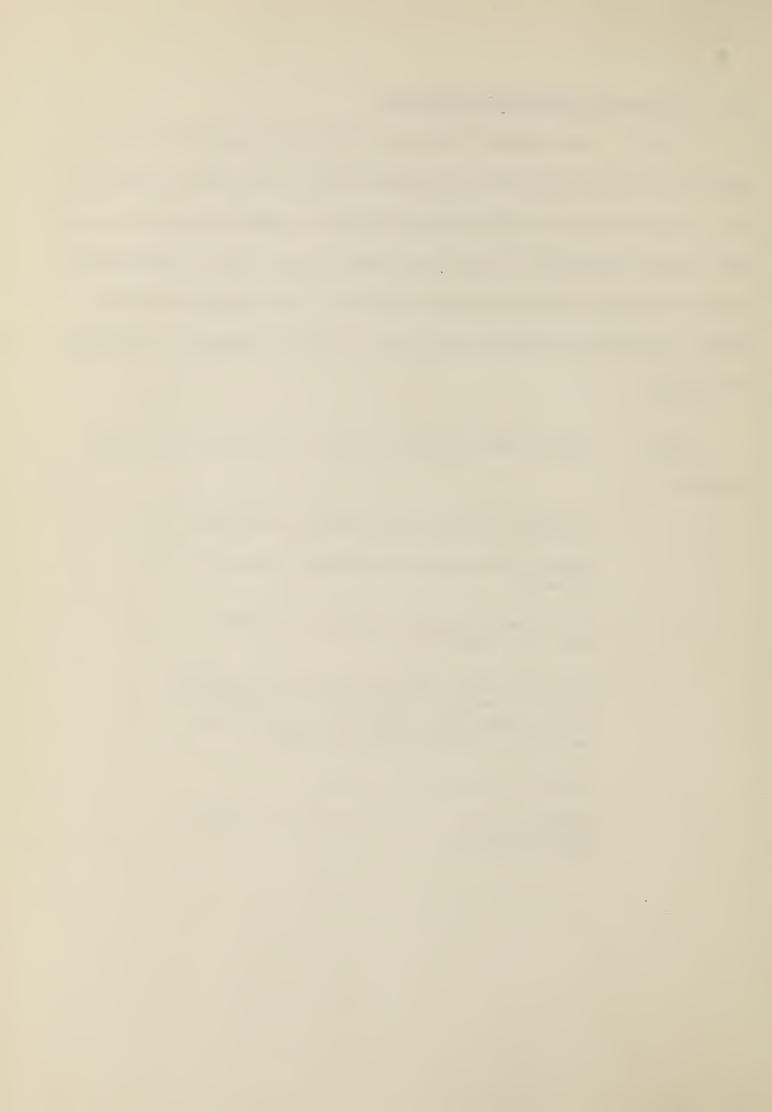
Lands and Forests, Canada Ministry of Transport, Canada Center for Inland

Waters, Ontario Provincial Police and other government agencies and industries

as required.

303.2 In the Ontario Contingency Plan, the functions of the ROT will be to:

- establish a communication link with the OOC,
- serve as the emergency team on the scene of the spill,
- review and evaluate situations and reports received for the OSC,
- advise the OSC of applicable control techniques, available materials, manpower; the danger to public health, fish, aquatic life and wildlife, navigation, oil and gas drilling safety,
- respond to the needs of the OSC,
- prepare reports, as may be directed by the On-Scene Commander.



304 PUBLIC INFORMATION

- 304.1 In the event of a major spill of oil or other hazardous materials into Ontario waterways, it is imperative that the public be provided with accurate information on the spill as to its nature and the measures being employed for its control. This policy will maintain the confidence of the concerned public and ensure accurate reporting of abatement progress.
- 304.2 Trained public relations officers from the participating agencies will be assigned to the Ontario Operations Center and the Regional Operations Team upon implementation of the Province of Ontario Contingency Plan.
- 304.3 The responsibilities of the public relations officers are to:
 - supervise public information activities (news conferences, etc.)
 - to prepare, together with the OSC and the OOC co-ordinator news releases involving major policy consideration
 - advise the OSC on possible public reaction to the courses of action under consideration
 - issue a daily written news release from the OOC and the ROT.

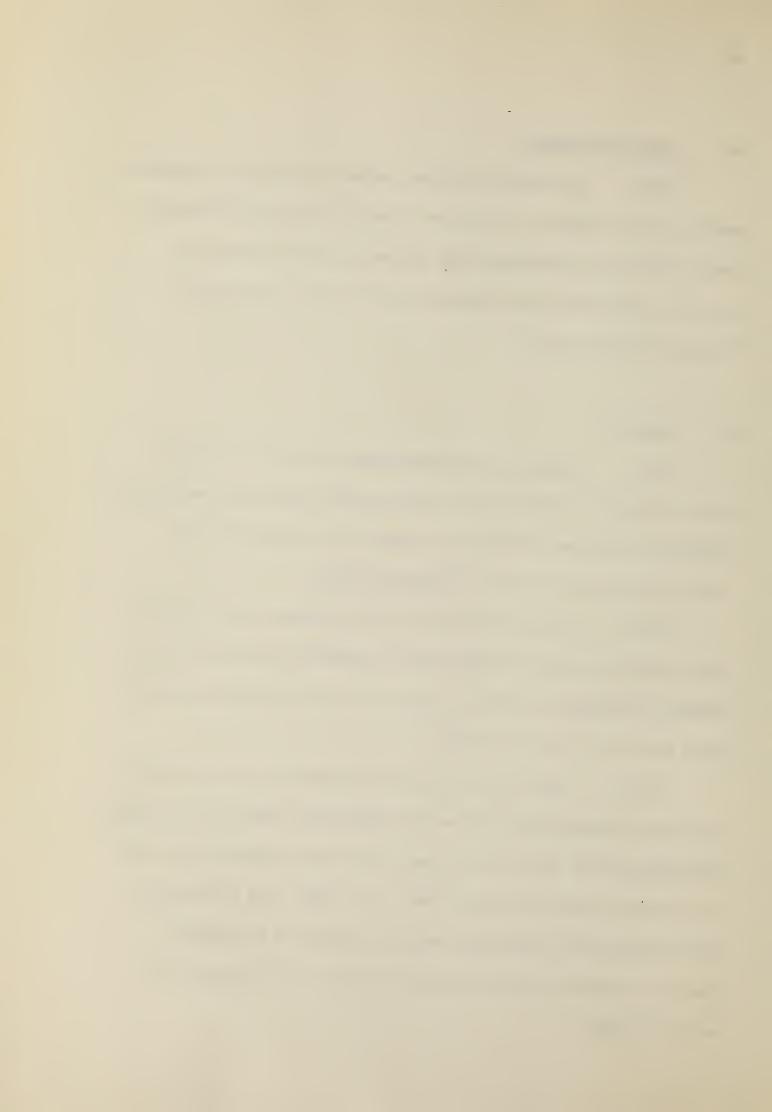


400 RESPONSE PHASES

400.1 The actions taken to combat a spill can be separated into four distinct phases. These are: Phase I - Discovery and Notification: Phase II - Containment and Countermeasures: Phase III - Clean-up, Restoration and Disposal, and Phase IV - Recovery of Damage and Enforcement.

401 PHASE I

- 401.1 <u>Discovery and Notification</u> are the first response actions to spills. Discovery of a spill may be a result from deliberate searching procedures or bay random discovery as outlined in the section entitled "Surveillance" (Appendix X400).
- 401.2 All spills of oil and other hazardous materials that may impair the province's waters shall be reported immediately to the ONTARIO OPERATIONS CENTER, Ontario Water Resources Commission phone 24-hours (416) 365-2537.
- 401.3 Upon notification and determination of the extent of a spill and whether it will require the placing into effect of the Ontario Contingency Plan, the OOC will then contact other agencies who may be concerned or may become involved. If a major spill is indicated, representation from each agency will be required for the Regional Operations Team to provide the necessary advice and action at the scene of a spill.



402 PHASE II

responses to be initiated as soon as possible after discovery and notification of a spill. Depending on the circumstances, these may include the placing of physical barriers to control the spread of oil, the placement of booms or barriers to protect onshore areas, and the use of dispersants, sorbents, gelling or burning agents or other materials to mitigate the effects of a spill.

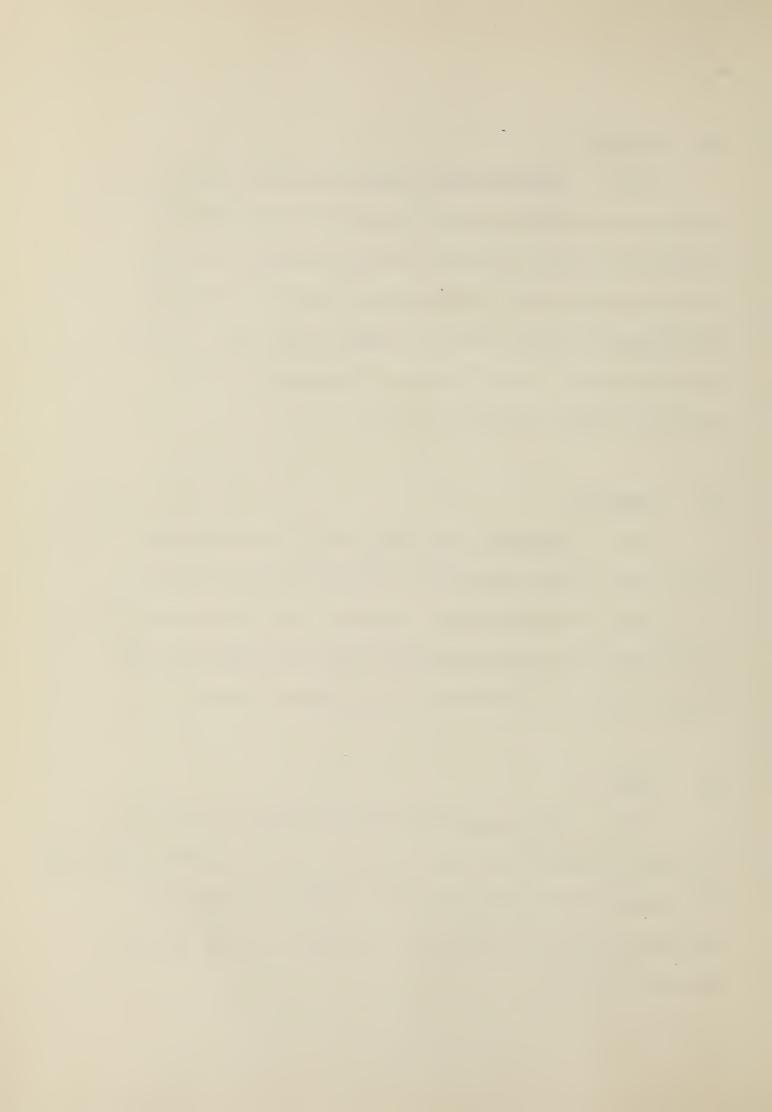
403 PHASE III

actions taken to remove the oil from the water such as the collection of oil through the use of sorbents, skimmers or other collection devices to restore the environment to its natural state and to safely dispose of oil which is recovered in the clean-up and restoration phase.

404 PHASE IV

404.1 Recovery of Damages and Enforcement will include a variety of activities depending on the location and circumstances of the spill.

An essential aspect of this phase is the collection of samples and other data as quickly as possible to substantiate the source for later recovery of damages.



- 404.2 The removal of the pollutant from the water, the restoration of the environment to its pre-spill conditions; the disposal of the pollutants recovered in clean-up and restoration are the primary responsibility of the polluter. Collection of samples and necessary supporting information will be made by the OWRC to determine the source and extent of the damages.
- dot.3 Each response to a pollution incident involves certain costs which must be borne by the polluter. Recommended action is to hold the polluters responsible for the incident including the costs of clean-up. Moreover, the nature of a pollution incident is such that it is of primary concern to commence containment and clean-up action immediately.
- determined or the person or persons responsible are unwilling or unable to effectively carry out the necessary clean-up operations, the OOC will mobilize the Ontario Contingency Plan and with an OSC co-ordinate clean-up, restoration and disposing of the pollutants.

 The costs of the operation will be charged to the person or persons who discharged or deposited the polluting material.



APPENDIX X100

ALERTING PROCEDURE



UNITED STATES COAST GUARD STATE AGENCIES UNITED STATES AGENCIES EPA-WOC ON - SCENE COMMANDER FEDERAL
CONTINGENCY PLAN
REGIONAL
COORDINATOR CCIW MUNICIPALITY INDUSTRY AND / OR ONTARIO PROVINCIAL POLICE REGIONAL OPERATION TEAM OPERATIONS CENTER
OWRC NOTIFICATION SPILL ONTARIO DEPARTMENT OF HEALTH NORTHERN AFFAIRS ONTARIO MINES ONTARIO OEPARTMENT & FORESTS LAMOS

APPENDIX X100

ALERTING PROCEDURE

PROVINCE OF ONTARIO CONTINGENCY PLAN



ALERTING PROCEDURE

for

SPILLS

In the event of an occurrence, observation or other notification of an oil spill contact

IMMEDIATELY:

ONTARIO OPERATIONS CENTER

Toronto

Phone - 24 hours

(416) 365-2537

The caller should obtain as much information as possible concerning the spill - see the FACT SHEET, Table X100.1 to be used as a guide.



TABLE X100.1

FACT SHEET FOR SPILLS

As much of the following information as possible should be obtained prior to reporting a spill to the Ontario Operations Center.

Time of Observation of spill

Probable source of spill

Probable time of spill

Location of spill

Nature of material spilled

Probable volume of spill

Probable duration of spill

Size of oil slick

Movement of oil slick

Weather and lake conditions

Action being taken to:

- control spill
- contain spill

Personnel on the scene of spill



PROVINCE OF ONTARIO CONTINGENCY PLAN

In the event of an oil or hazardous material spill, the ONTARIO OPERATIONS CENTER should be immediately notified by calling (416) 365-2537 (24 hours).

Co-ordinators:

Mr. N. Vanderkooy

Mr S.E. Salbach Mr. W.A. Steggles

Mr. K. Shikaze (416) 365-6975

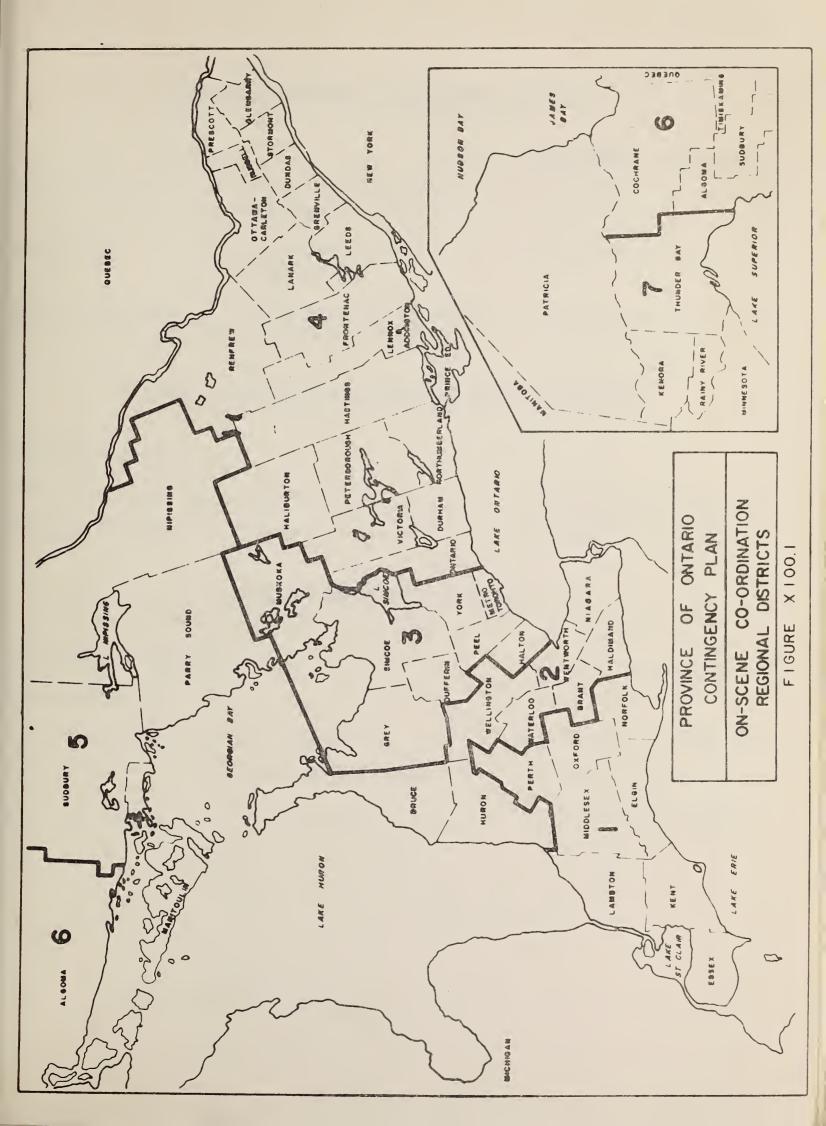
When the Ontario Contingency Plan is implemented the following personnel will become the designated On-Scene Commander for their respective district (see map).

District	On-Scene Commander	Alternates	Office Phone	Home Phone
1	Mr. R. Hussain	Mr. J. Bray	519-433-3961 519-433-3961	519-471-7860 519-471-1026
2	Mr. R.C. Stewart	Mr. R. MacMurray Mr. V. Buxton Mr. G. Van Fleet	416-365-6346 416-365-1655 416-365-1655 416-365-1655	416-451-8226
3	Mr. T.D. Armstrong	Mr. G. Missingham Mr. M. Filey	416-365-6346 416-365-6967 416-365-6346	416-487-0673 416-727-8394
4	Mr. T. Dafoe	Mr. L. South Mr. G.I. Macey	613-546-3171 613-544-3320 613-544-3320	613-544-0992 613-546-5047 613-382-4344
5	Mr. L. Fitz	Mr. J. Stasiuk	705-674-3151 416-365-6967	705-566-6046
6	Mr. J. Moore		705-949-3961	705-254-4069



District	On-Scene Commander	Alternates	Office Phone	Home Phone
7.	Mr. I. Ramsay	Mr. J. Marsh		807-344-3359 807-344-0354







ONTARIO DEPARTMENT OF LANDS AND FORESTS

		Office Phone	Home Phone
Mr. S.B. Panting	- Supervisor Engineering Services	416-365-1271	116-225-8543
Mr. H. Weir	- Northwestern Region Thunder Bay	807-683-7171	807-345-8140
Mr. J.A. Hindman	- Southern and Northeastern Region, Huntsville	705-789-4471	705-385-2214

ONTARIO DEPARTMENT OF MINES AND NORTHERN AFFAIRS

Petroleum Resources

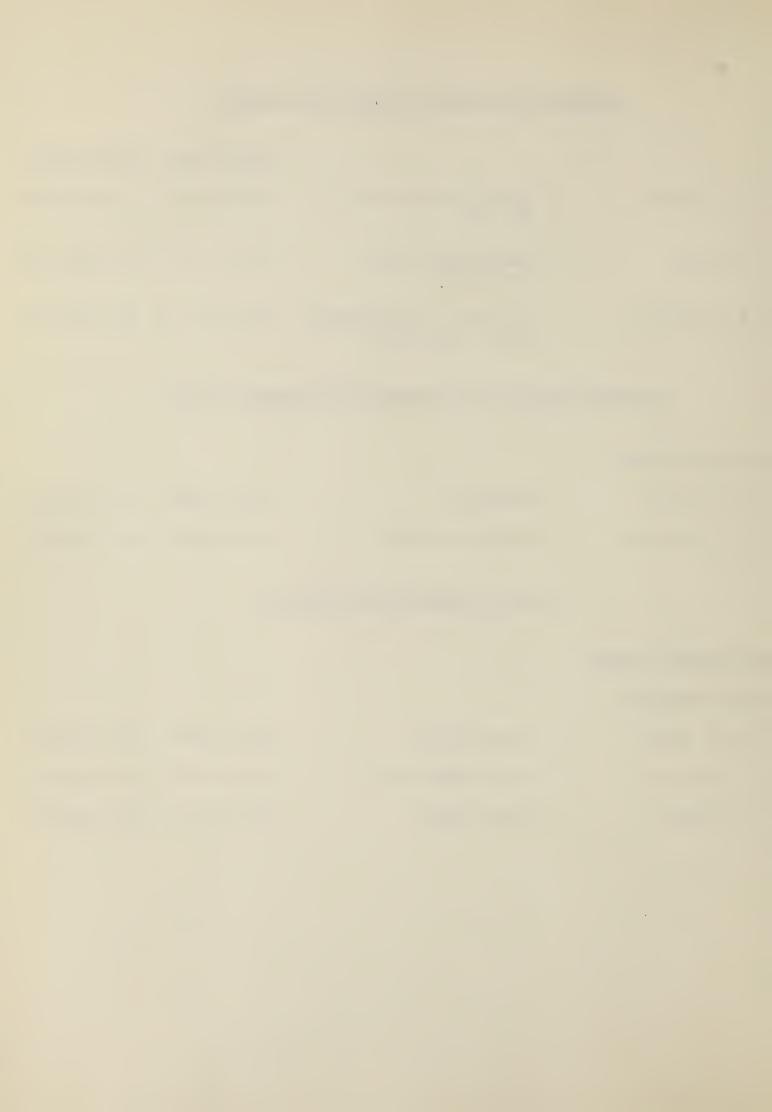
Mr.	D.A. Sharpe	427	Supervisor	416-365-1981	416-921-6768
Mr.	D.D. McLean	_	Reservoir Engineer	416-365-1983	416-489-0872

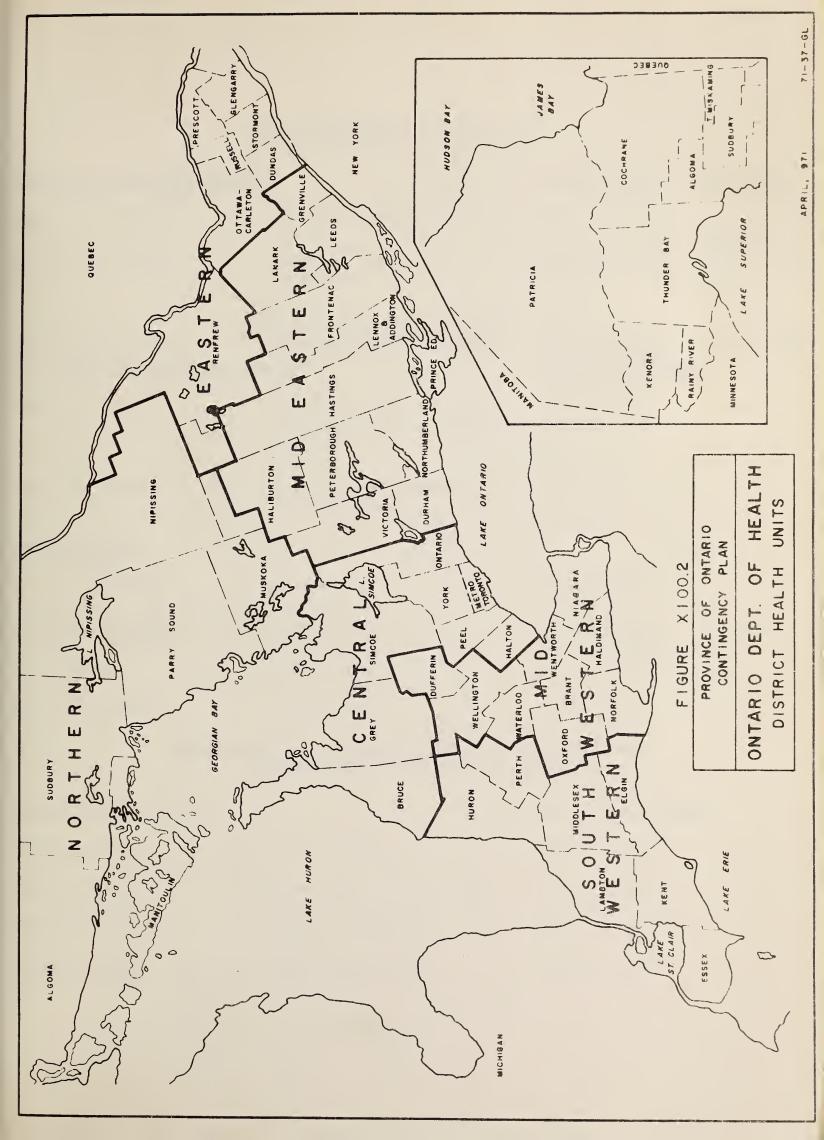
ONTARIO DEPARTMENT OF HEALTH

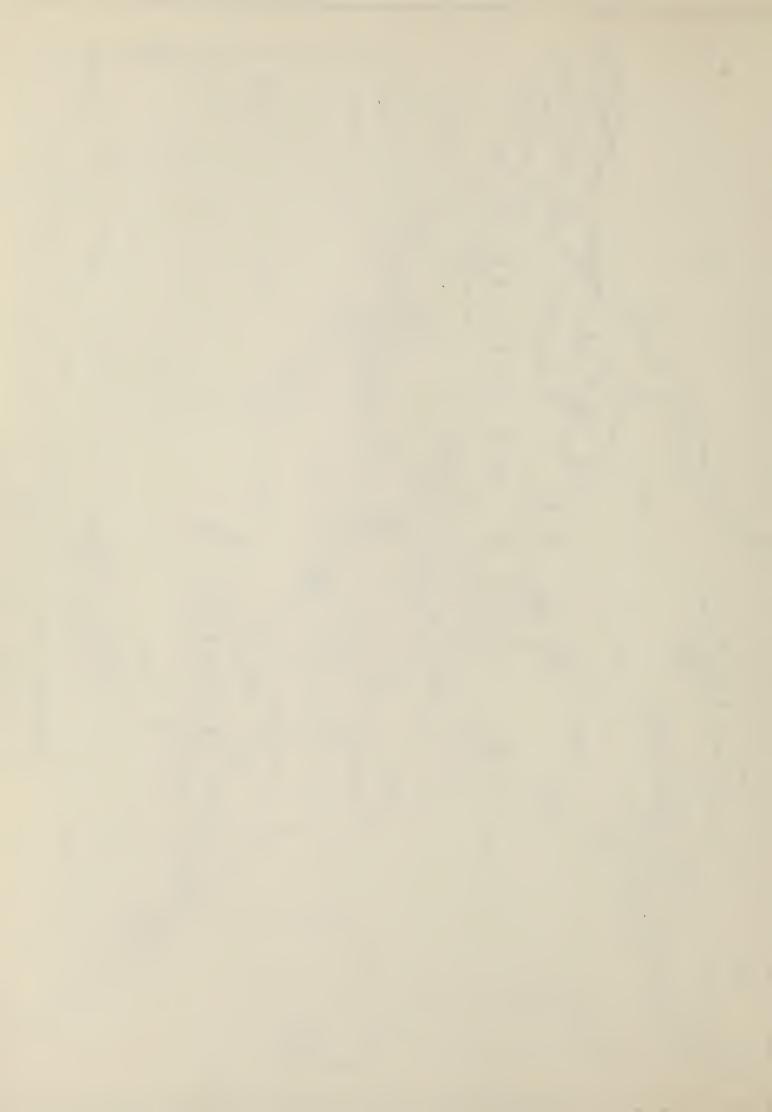
Public Health Engineers

Regional Engineers

Mr.	D.W. Milne		Central Region	416-365-4071	416-759-6858
Mr.	D. Aitkens	-	Southwestern Region	813-434-5731	813-433-5892
Mr.	D. Kimber	-	Eastern Region	823-546-3279	823-389-5747





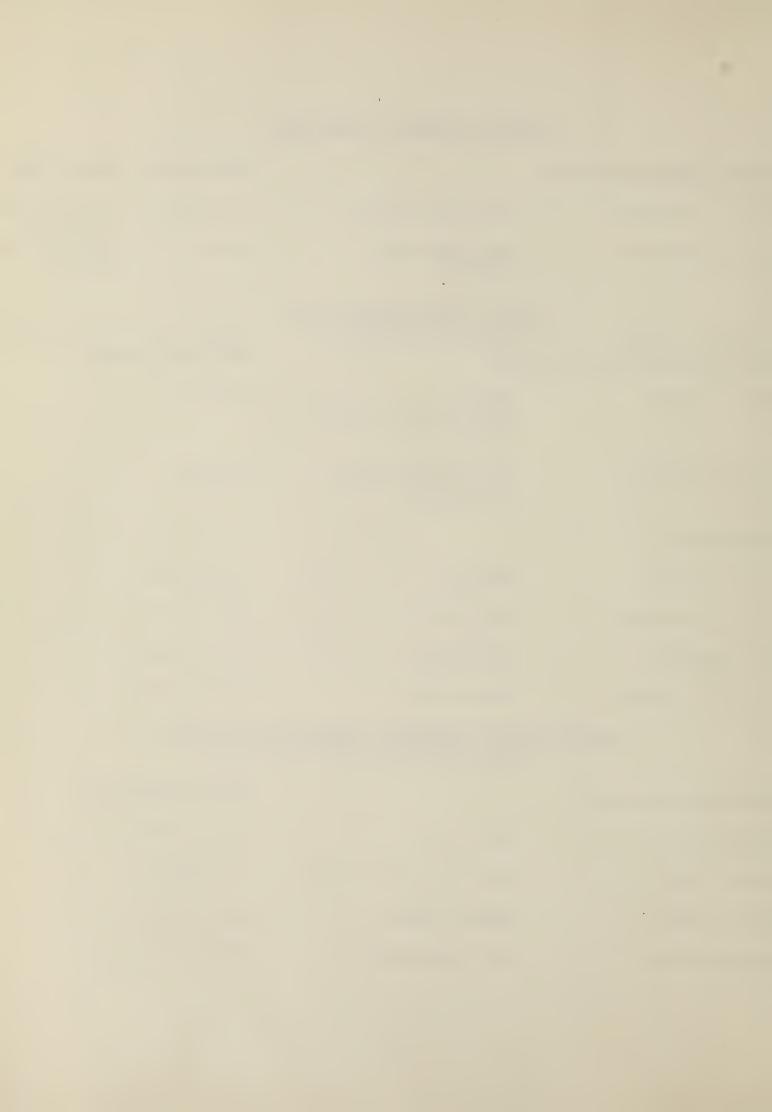


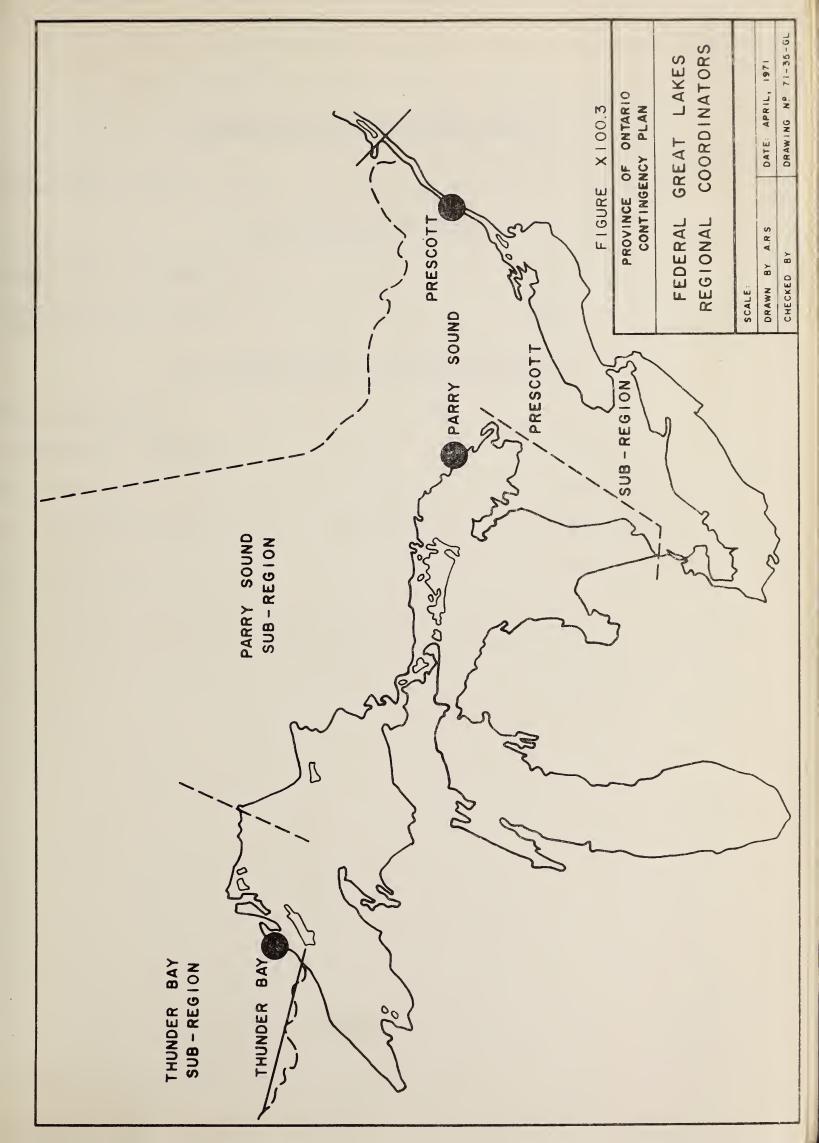
CANADA MINISTRY OF TRANSPORT

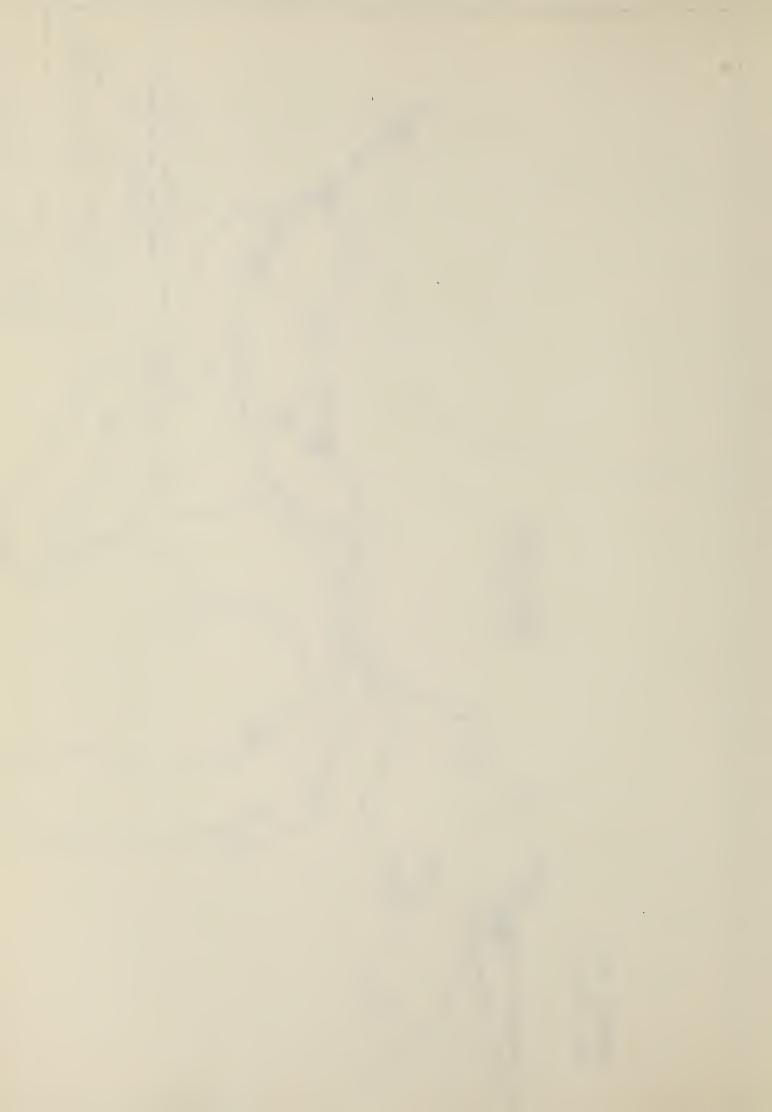
Steamship Inspection B	Office Phone	Home Phone		
Mr. A. C. Parkinson	-	Steamship Inspector	416-369-4605	416-637-6160 Burlington
Mr. D. R. Weaver	-	Senior Steamship Inspector	416-369-4605	416-277-3463 Toronto
14 TH T TT G:		EDERAL CONTINGENCY PLAN		
Mr. W.J.H. Stuart Great Lakes Regional C		111-1111 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	613-992-9743 Telephone 24-h	
Mr. J. P. Bruce	-	Director Canada Centre for Inland Waters	637-4303	
Dr. A. R. LeFeuvre	-	Environmental Quality Co-ordinator	637-4303	
Marine Agents				
Mr. J. S. Barrick	-	Prescott	613-925-2865	
Mr. F. K. McKean	-	Parry Sound	705-746-2196	
Mr. J. Bennett	-	Amherstburg	519-736-5075	
Mr. R. W. Forbes	-	Thunder Bay	807-345-6311	
TRANS	SPO RT	ATION EMERGENCY ASSISTANC	Ε ΡΙΔΝ (ΤΕΔΡ)	

TRANSPORTATION EMERGENCY ASSISTANCE PLAN (TEAP) (CHEMICAL PRODUCERS ASSOCIATION)

Regional Control Centre			Telephone 24-hours
Western Ontario	-	Dow, Sarnia	519-337-8282
Central Ontario	_	Cyanamid, Niagara Falls	416-356-8310
Eastern Ontario	-	Dupont, Maitland	613-348-3616
Northern Ontario	-	CIL, Copper Cliff	705-682-2881







UNDER-WATER GAS DEVELOPERS LIMITED

Niagara Base

24 hrs.

416-835-2427

Dispatcher Lake Erie

U.S. COAST GUARD OFFICE

District Office, Cleveland

Ninth Coast Guard District

Day

216-522-3950

Night

216-522-3983

U. S. ENVIRONMENTAL PROTECTION AGENCY

Water Quality Office

Captain of the Port

Regional Office, Chicago

Mr. A. Manzardo

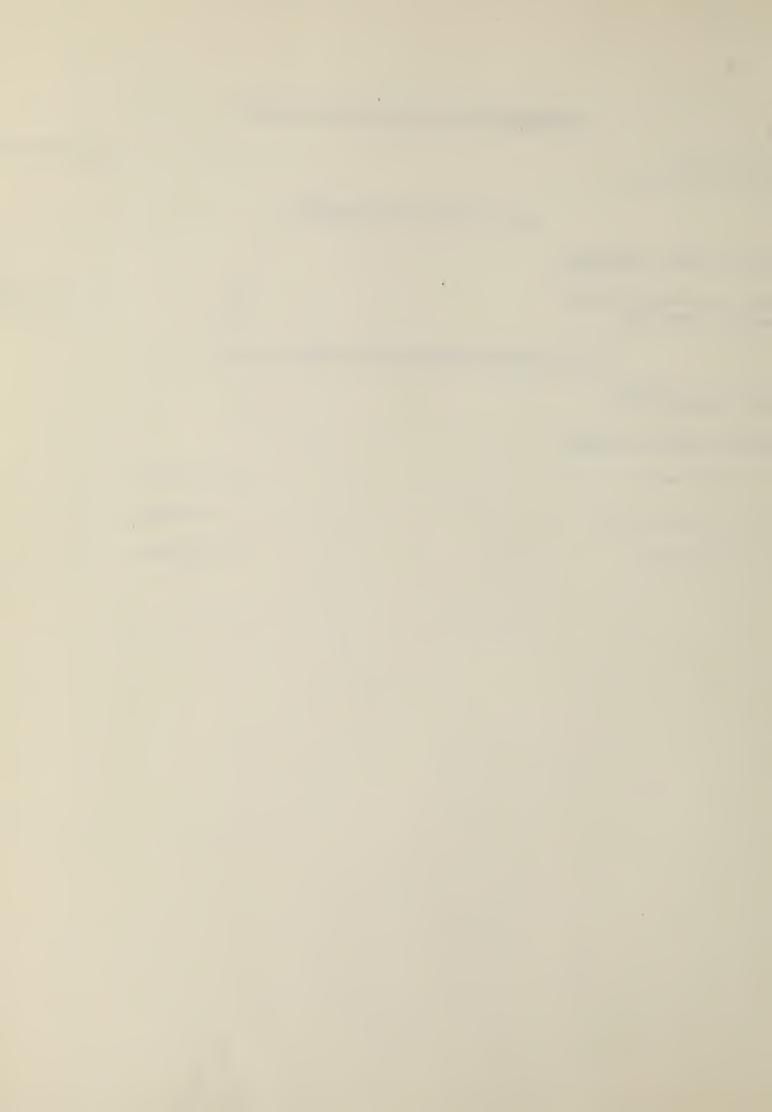
312-756-4712

Mr. C. Pemberton, Jr.

312-968-0381

Mr. R. Tellebson

312-543-7180



PROCEDURE FOR REPORTING INFORMATION

and

COLLECTING SAMPLES



PROCEDURE FOR REPORTING INFORMATION AND COLLECTING SAMPLES

X200.1 In the event of any spill, it is essential that factual information on the spill, as well as representative samples be collected for later use in clean-up cost recovery, damage recovery and in enforcement actions.

X201 INVESTIGATION AND REPORTING (See Fact Sheet, Table X100.1)

- investigate all observed and reported spills,
- collect samples of oil from water and from all suspected sources of the spill,
- interview witnesses and obtain names,
- prepare a report on personal findings and observations of others,
- submit reports of spill to ONTARIO OPERATIONS CENTER.

X202 SAMPLE COLLECTION

- X202.1 Several precautions must be taken when collecting and handling liquid samples for analyses. The character of a sample may be affected by the following conditions:
 - (a) the composition and cleanliness of the container



- (b) manner in which the sample is taken
- (c) time lapse before analyses
- X202.2 In taking samples, the following procedures should be followed:
 - (a) glass or stainless steel containers of at least one quart size should be used.
 Containers made of all plastics except
 Teflon have been found to absorb organic materials from water. In other cases, compounds have been dissolved from plastic containers. This also applies to bottle cap liners. The portion of the cap liner which may come into contact with the sample in the container should be made of glass, aluminum foil or teflon.
 - (b) clean new containers are preferred, although containers that have been cleaned with a strong detergent, thoroughly rinsed and dried may be used.
 - (c) as large a sample as possible of the oil (at least 10 ml of concentrated oil) should be taken to enable the chemist to conduct all the necessary analytical tests. Skimming techniques should be employed to obtain a sufficient amount of oil for analysis.
 - (d) when water is polluted, it is not unusual for the polluting condition to change rapidly. Representative samples should be taken with the time sequence and place appropriately noted.
 - (e) samples must be properly labelled, e.g. name of person who collected the sample, time, location, name of person who witnessed the collecting of the sample and the chain of custody of the sample.



- (f) samples should be refrigerated and delivered to the OWRC laboratories, Hwy. 401 and Islington with a minimum of delay.
- and recorded, from the time the samples are taken until they are produced as court evidence. In this regard, a record of time, place, name and title of persons taking the samples, names of witnesses and each person handling the samples must be maintained and accompany the samples.



OWRC GUIDELINES

for the

USE OF CHEMICAL DISPERSANTS

for

OIL SPILLS



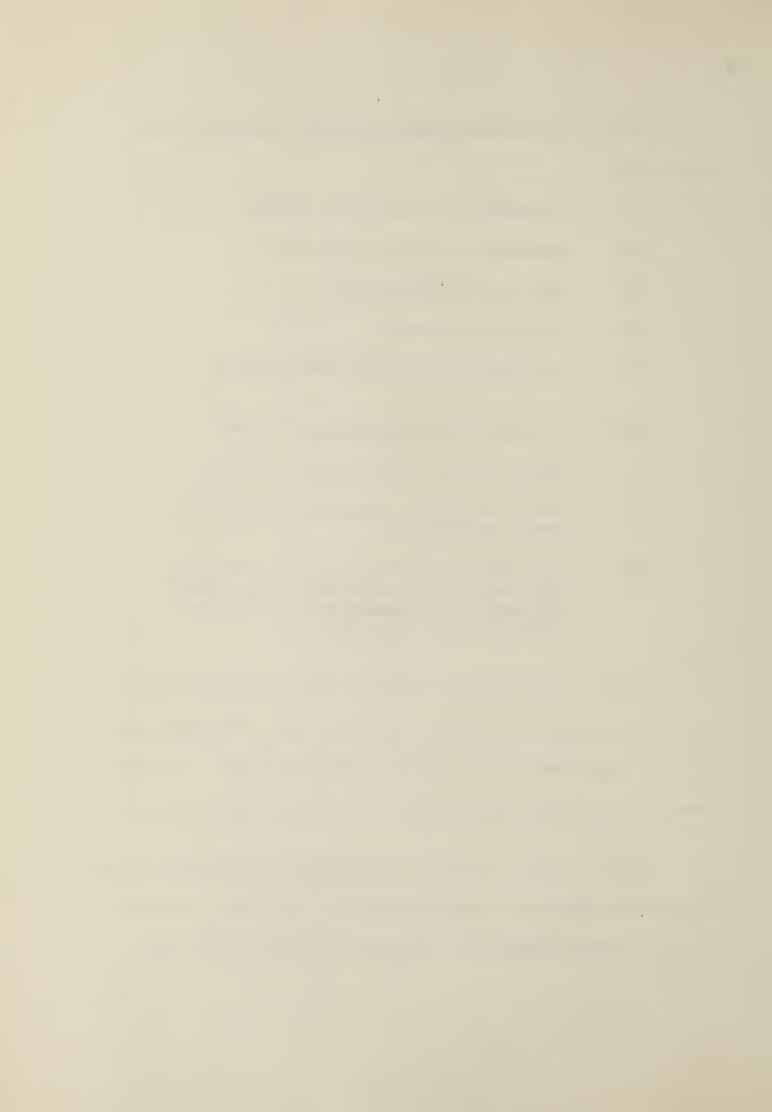
OWRC GUIDELINES FOR THE USE OF CHEMICAL DISPERSANTS FOR OIL SPILLS

X300.1 The chemical treatment of oil on water by the use of detergents or dispersants as they will be referred to in these guidelines has been the subject of much controversy since their massive use during the Torrey Canyon oil spill in 1967. Because the subsequent research studies into the effects of dispersants after the Torrey Canyon spill have shown that dispersants caused severe adverse effects on the aguatic life in the area, there has developed an increasing awareness on the part of regulatory agencies to limit the use of dispersant for the dispersion of oil on water. Unfortunately, no clear dividing line can be established to define the circumstances under which dispersants can be used, and therefore, it becomes necessary to set forth some general guidelines for their use. Where possible, the Ontario Water Resources Commission should be consulted before a dispersant is used, but it is recognized that the emergency nature of many oil spills necessitates an immediate decision on the part of those responsible to effect clean-up. The following recommendations are made to ensure that all the pertinent factors are taken into consideration before a decision is made regarding the use of dispersant chemicals.



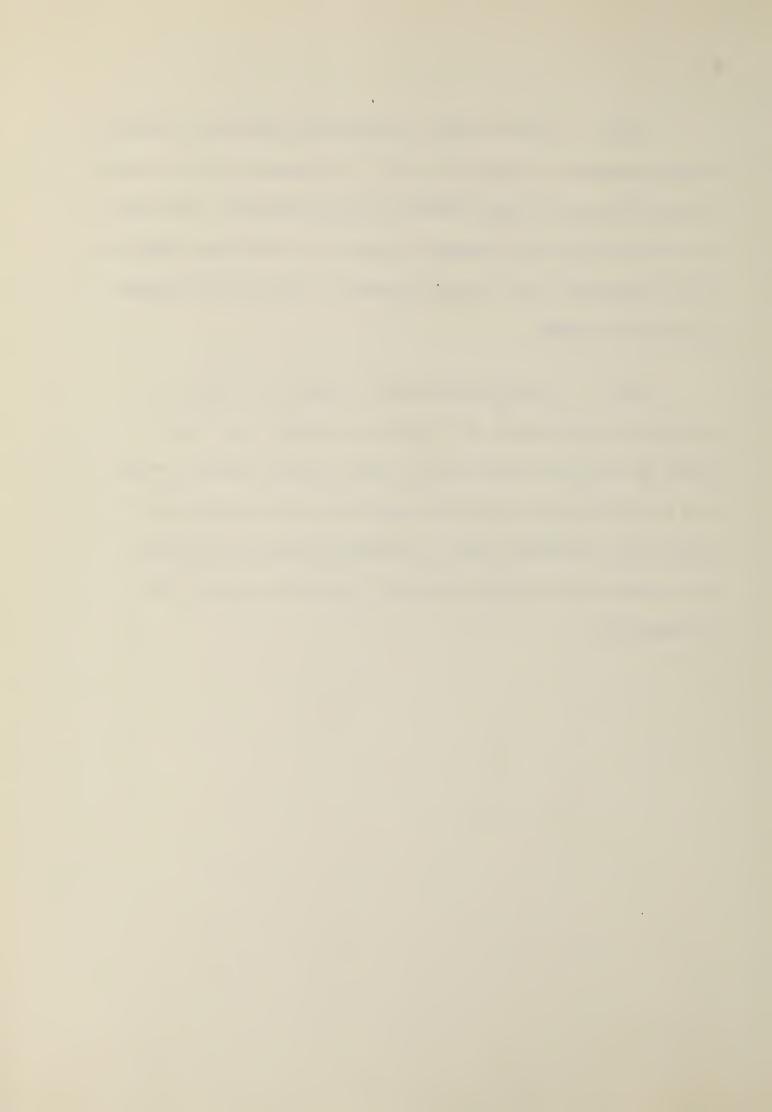
X300.2 Dispersants should <u>not be used</u> where the prime concern is:

- (i) protection of surface water supplies,
- (ii) protection of fish spawning areas,
- (iii) protection of fishing areas,
- (iv) protection of beaches,
- (v) protection of known waterfowl habitats.
- X300.3 Dispersants may be considered for use:
- (i) where a fire and safety hazard is present,
- (ii) where the floating oil presents an immediate hazard to waterfowl,
- (iii) for control and clean-up of small oil slicks, and then only after all other possible methods for control, containment and removal of the floating oil have been ruled out.
- X300.4 Where a high potential for small oil spills exists, the first line of defence should be a mechanical boom. However, the storage of dispersants for emergency use will be permitted. Such use, however, should only be after consideration of the foregoing points.
- X300.5 Where possible, the application of dispersants should be under the supervision of OWRC personnel. In any event, the OWRC should be contacted whenever a dispersant is used for an oil spill.



X300.6 Where possible, dispersants exhibiting the minimum toxicity to aquatic life should be used. It is recognized that a reduced toxicity often means a lower efficiency of the dispersants. The OWRC Division of Research is continually studying the toxicity and effectiveness of dispersants, and can be consulted for information on specific proprietary chemicals.

X300.7 Chemicals have been developed for sinking oil, gelling of oil, herding oil, etc., but in most cases, their applicability for use on oil spills is more limited. These chemicals, while they are generally less toxic than dispersants, should not be used without prior consultation with the ONTARIO OPERATIONS CENTER or the predesignated On-Scene Commander, since other factors must be considered.



SURVEILLANCE



SURVEILLANCE

X400.1 Spills of oil and other hazardous materials should not be permitted to occur. However, accidents are possible and when such incidents do occur, the responsible party is often reluctant to report the details immediately. Therefore, it is desirable for all agencies and persons carrying out activities in the Province to maintain an awareness of possible sources of oil and other hazardous material and the system of notification to be followed in the event of a spill. The following government agencies, and other groups provide surveillance in the Great Lakes System.

X400.2 Provincial Agencies

- (a) Ontario Water Resources Commission
- survey vessels
- periodic aerial surveillance
- (b) Ontario Dept. of Mines and Northern Affairs
- oil and gas well drilling inspections
- (c) Ontario Dept. of Lands and Forests
- research vessels
- routine aerial surveillance



X400.3	Federal Agencies
(a)	Department of Transport
-	Canadian coast guard
-	periodic aerial surveillance
(b)	Canada Centre for Inland Waters
-	research vessels
X400.4	United States Agencies
(a)	U. S. Coast Guard
(b)	U. S. Corps of Engineers
(c)	Water Quality Office of the U.S. Environmental Protection Agency
(d)	State Agencies - Michigan, Ohio, Pennsylvania, New York, Minnesota Wisconsin
X400.5	Shipping Industry
X400.6	Fishing Industry
X400.7	Oil and Gas Well Drilling Industry
X400.8	Waterworks Operators
X400.9	Public-at-large
	pleasure boatersfishermen
X400.10	Shore-based Industry
X400.11	Harbour Boards and Commissions

t



- X400.12 Ontario Provincial Police
- X400.13 Ontario Department of Highways



RESEARCH



RESEARCH

X501 CANADA CENTRE FOR INLAND WATERS (CCIW)

X501.1 The Canada Centre for Inland Waters is an interdisciplinary centre for water studies in Canada. It is being developed
by three Federal departments, Energy Mines and Resources (EMR),
Fisheries and Forestry (Fisheries Research Board), and National Health
and Welfare, and the university community. Current activities at the
centre are focussed on research on the Great Lakes. A number of
research vessels operate from the centre as part of the research
program.

X502 ONTARIO WATER RESOURCES COMMISSION (OWRC)

- X502.1 Under the Division of Research, staff are continually compiling data and evaluating various chemicals and materials which are commercially available for cleaning up oil spills.
- X502.2 From time to time, technical information exchanges, possibly in the form of seminars, meetings, etc. will be organized by the OWRC. The objectives of these information exchanges will be to review:



- techniques for containment and removal of oil and hazardous material,
- provide information for the development of local contingency plans,
- exchange information on available resources for spill abatement.



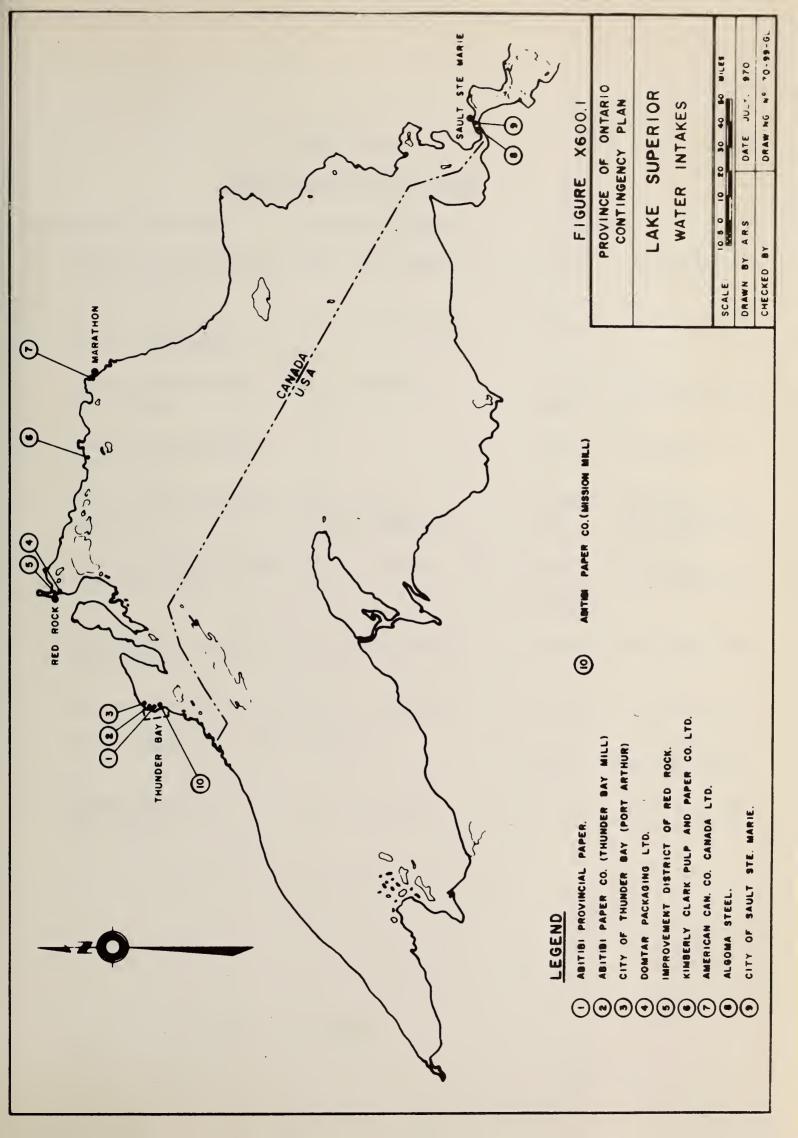
APPENDIX X600

WATER INTAKES

RECREATIONAL AREAS

FISH AND WILDLIFE AREAS



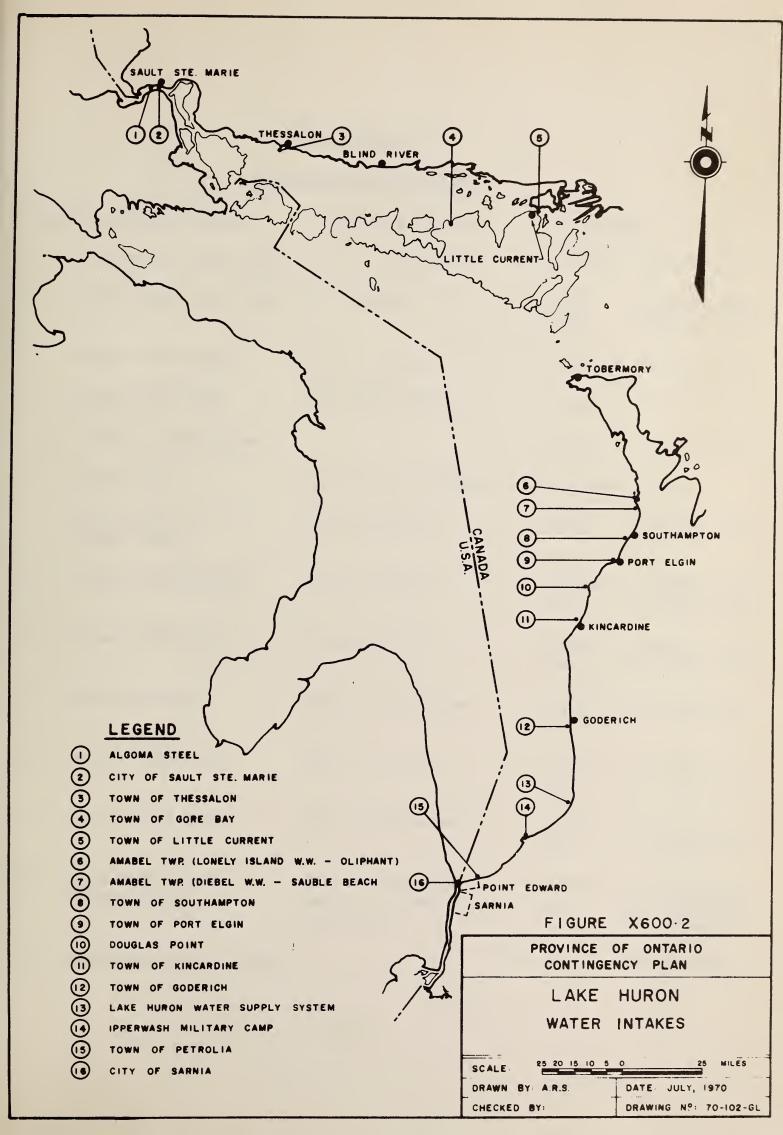




LAKE SUPERIOR WATER USERS

Location of Water Works		Persons to Contact	Telephone	
1.	Abitibi Provincial Paper (Thunder Bay)	Mr. D. W. Peat	24 hrs.	807-683-6211
2.	Abitibi Paper Co. (Thunder Bay Mill)	Mr. W.C.E. Wood	24 hrs.	807-683-6235
3.	City of Thunder Bay (Port Arthur)	Mr. D. Howes	Office Res.	807-623-2711 807-344-2555
4.	Domtar Packaging Ltd. (Red Rock)		24 hrs.	807-866-2111
5.	Improvement District of Red Rock	Mr. F. Twa (P.U.C. Red Call)	Office Res.	807-866-2245 807-866-2698
6.	Kimberly Clark Pulp and Paper Co. Ltd.	Mr. J. A. Ferrier	Plant Pump- house	807-825-3211 807-825-3259
7.	American Can Co. of Canada Ltd.	Mr. C. E. Stevens	24 hrs.	807-229-1200
8.	Algoma Steel Corp. Ltd.	Dr. J. A. Standige	24 hrs.	705-254-5111
9.	City of Sault Ste. Marie	Mr. Belyea	Office Res.	705-256-6261 705-256-2546
10.	Abitibi Paper Co. Mission Mill	Mr. A. Marcoux	24 hrs.	807-623-6486







LAKE HURON WATER USERS

Location of Water Works		Persons to Contact	Telephone	
1.	Algoma Steel Corp. Ltd.	Dr. J. A. Standige	24 hrs.	705-254-5111
2.	City of Sault Ste. Marie	Mr. Belyea	PUC Res.	705-256-6261 705-256-2546
3.	Town of Thessalon	Mr. F. Valley	Res.	705-842-2311
4.	Town of Gore Bay	Mr. Jack Cowell	Res.	705-282-2292
5.	Town of Little Current		PUC	705-368-2093
6.	Amabel Twp.	Mr. W. A. McKenzie	Oliphan	t, Ontario
7.	Amabel Twp. Sauble Beach	Mr. G. Diebel	Res.	519-934-2115
8.	Town of Southampton	Mr. G. Manley	Office Res.	519-797-3730 519-797-2309
9.	Town of Port Elgin	Mr. Ken Paul	Office Res.	519-832-2742 519-832-2624
10.	Douglas Point	Mr.C.A. McKerlie	Office Res.	519-396-3321 519-396-2824
11.	Town of Kincardine	Mr. H. Watson	Office Res.	519-396-2743 519-396-2268
12.	Town of Goderich	Mr. M. Wilkinson	Office Res.	519-524-6518 519-524-7454
13.	Lake Huron Water Supply System	Mr. Alan Ladbrook Mr. E. D. Reed Pumphouse	Office Res.	519-433-3961 519-439-4836 519-238-2361
14.	Ipperwash Military Camp		Camp	519-873-2381

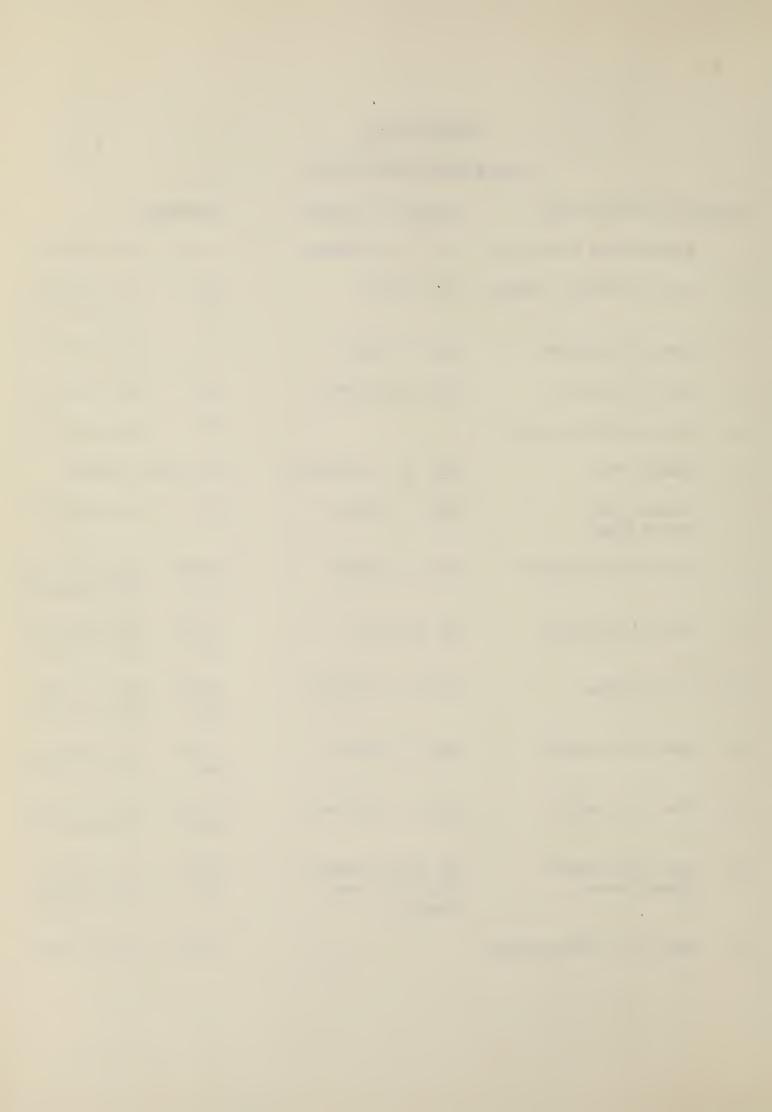
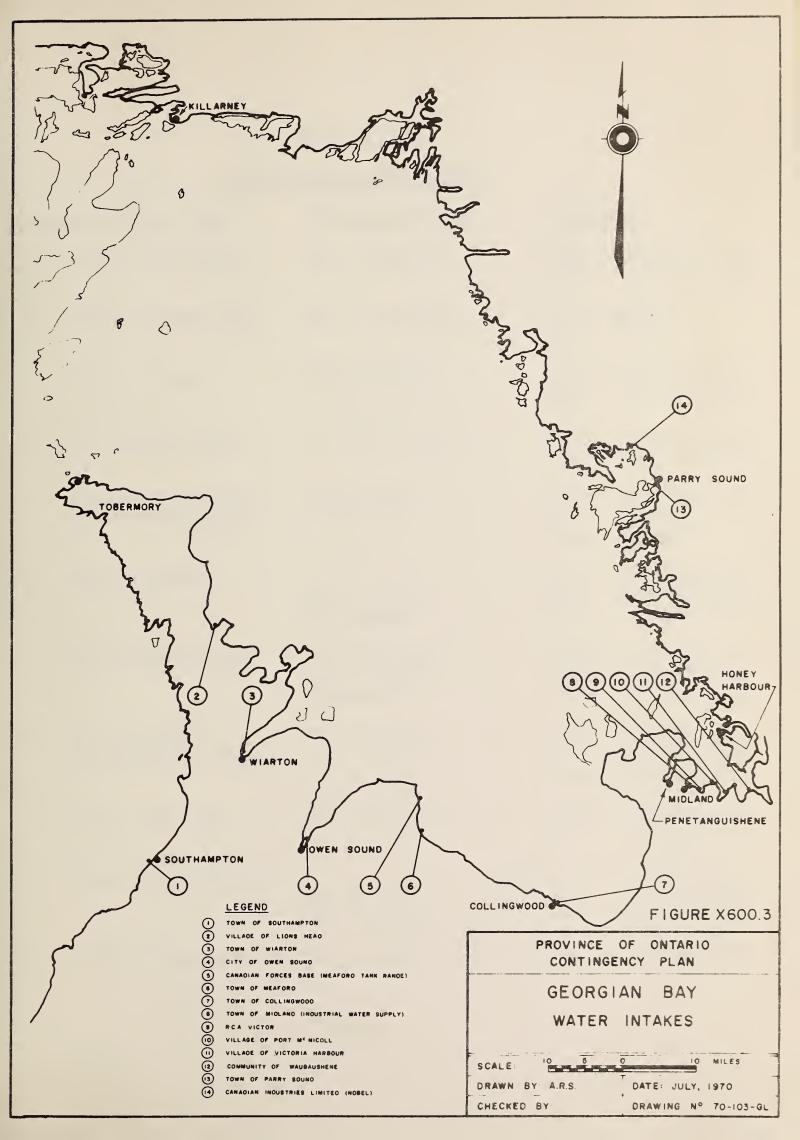
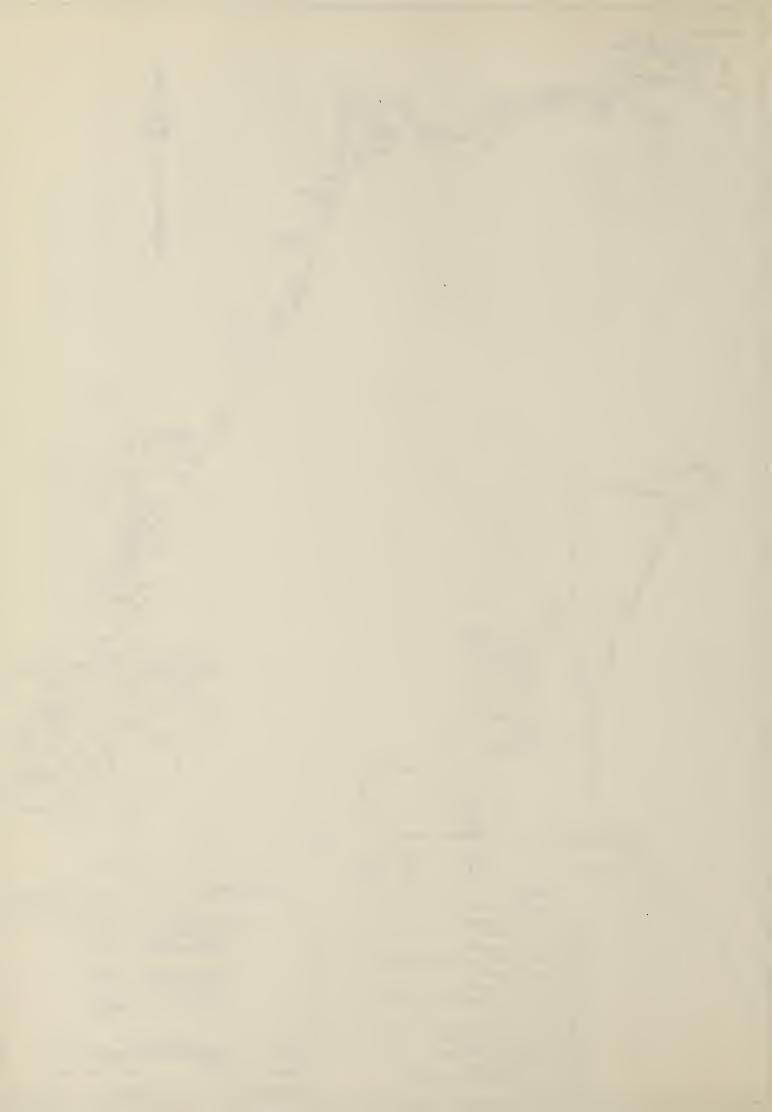


TABLE X600.2 (cont'd)

Location of Water Works		Persons to Contact	Telepho	Telephone	
15.	Town of Petrolia	Mr. A. Rose	PUC Home Pumphouse	519-882-0340 519-882-0403 519-869-4011	
16.	City of Sarnia	Mr Keith Reyneker	Office Res. Pumphouse	519-337-7501 519-542-4593 519-344-2851	







GEORGIAN BAY WATER USERS

Loca	tion of Water Works	Persons to Contact	Telep	hone
1.	Town of Southampton	Mr. G. Manley	Office Res	519-797-3730 519-797-2309
2.	Village of Lions Head	Mr. C. Shouldice	Lion's Res.	s Head 65
3.	Town of Wiarton	Mr. B. Daykin	Office Res	519-534-0260 519-543-0325
4.	City of Owen Sound	Mr J. A. Gurnham	PUC Res.	519-376-4530 519-376-9714
5.	Canadian Forces Base (Meaford Tank Range)	Maintenance	Office Day Night	2 513-538-1850 Local 29 Local 46
6.	Town of Meaford	Mr. M. Cook Mr. Bishop	PUC Res. Res.	519-538-2662 519-538-3673 519-538-3822
7.	Town of Collingwood	Mr W.G.Lane Mr. R. Smith Operator	Office Office	705-445-1185
8.	Town of Midland (Industrial Water Supply)	Mr. A. Holmes Mr. S. Holt	Plant Res. Office	
9.	R.C.A. Victor Ltd.	Mr A. G. Cox	Office Res.	705-526-7871 705-526-8087
10.	Village of Port McNicoll	Mr. V. Kelly Mr. M. Kelly	Mun.Office Res. Res.	705-534-7281 705-534-7375 705-534-7494
11.	Village of Victoria Harbour	Mr F. Miller	Res.	705-534-7823

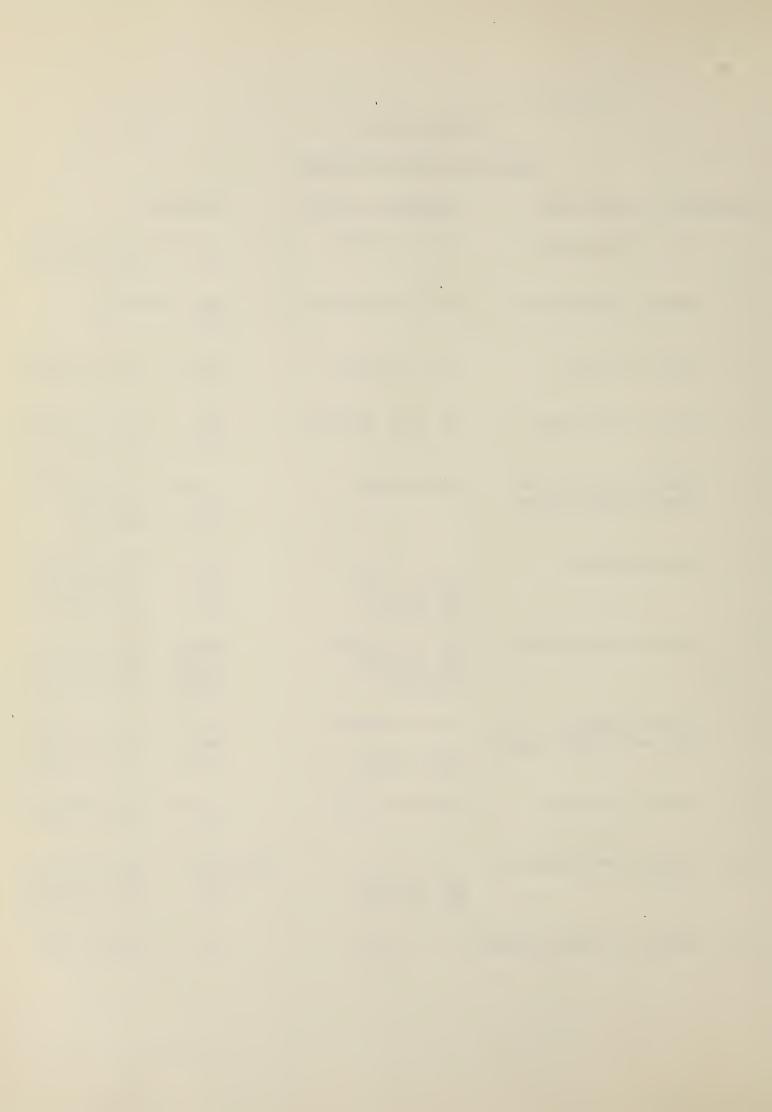
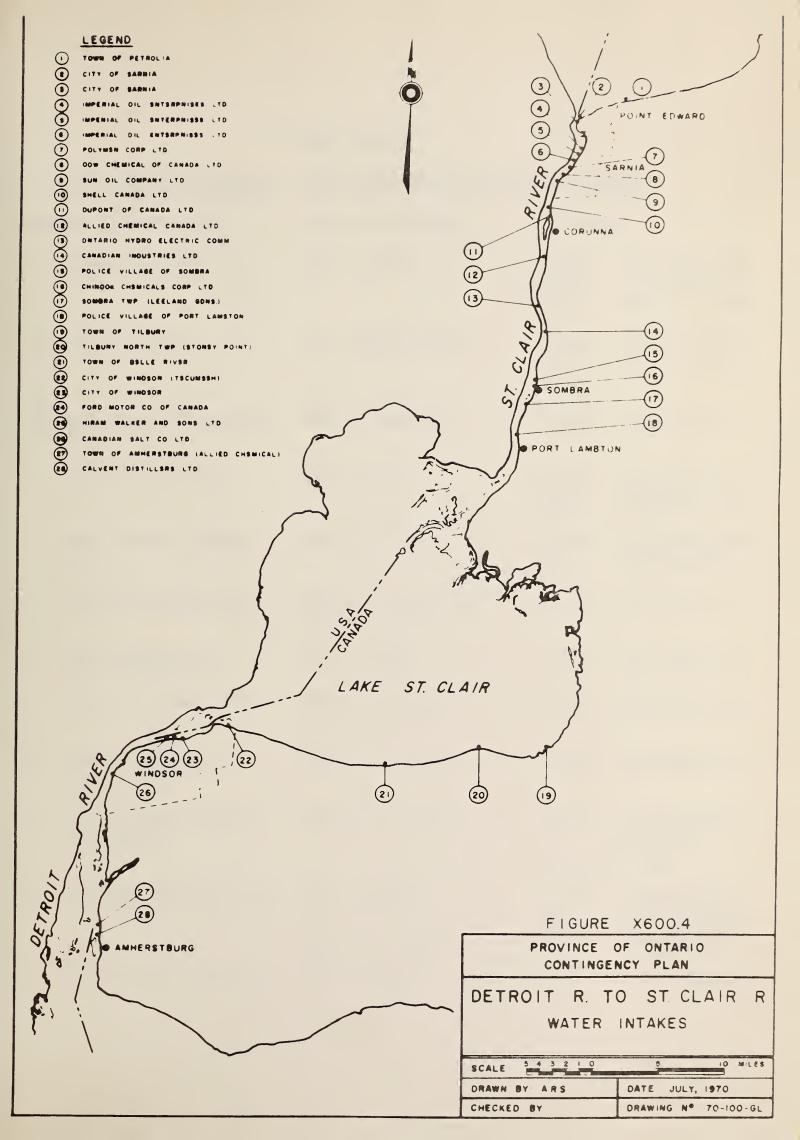


TABLE X600.3 (cont'd)

Locat	ion of Water Works	Persons to Contact	Telephor	ne
12.	Community of Waubaushene	Mr. J. Moreau	Office Res.	705-538-2971 705-538-2964
13.	Town of Parry Sound	Mr. D. Thomas	Office Res.	705-746-5866 705-746-9866
14.	Canadian Industries Ltd. (Nobel)	Mr. H. R. Sweet Mr. G. A. Ingleson	Office Res. Res.	705-342-5213 705-342-5336 705-342-9919





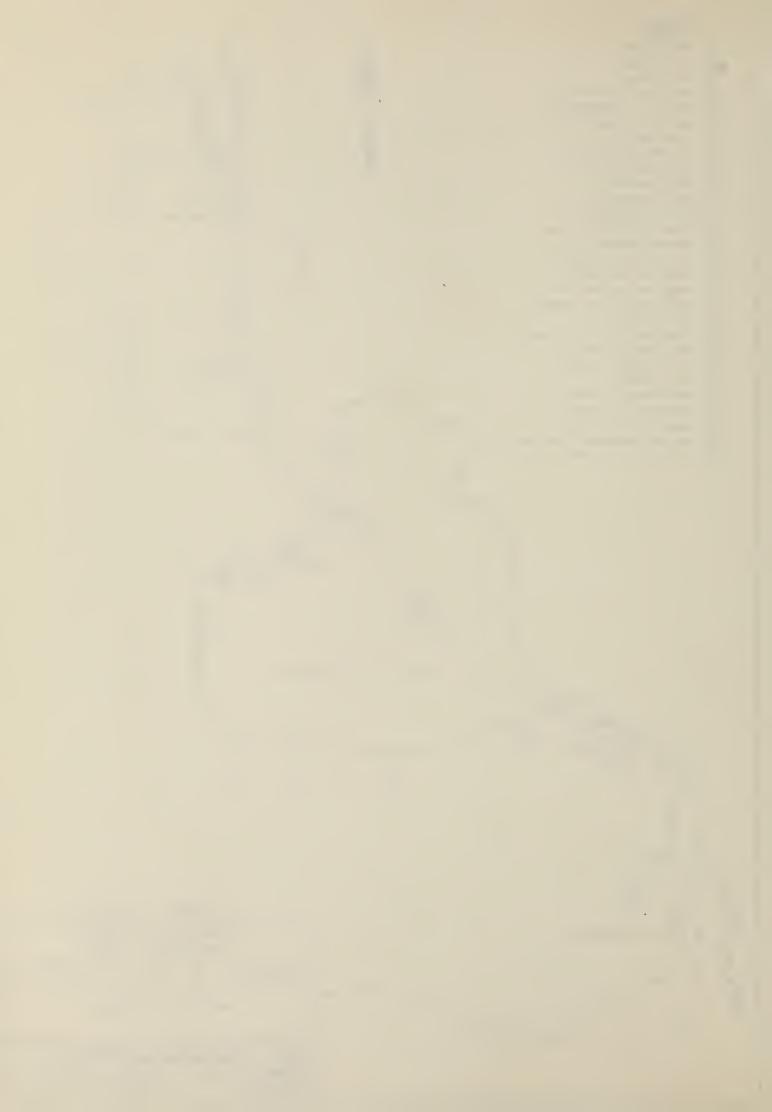


TABLE X600.4 ST. CLAIR RIVER, LAKE ST. CLAIR AND DETROIT RIVER WATER USERS

Location of Water Works		Persons to Contact	Telephone		ne
1.	Town of Petrolia	Mr. A. Rose	Pum	Office phouse Res.	519-822-0340 519-869-4011 519-882-0403
2. 3.	City of Sarnia	Mr. Keith Reyneker		Office Res.	519-344-2851 519-542-4593
4. 5. 6.	Imperial Oil Enterprises	Mr. G. Schindel		24 hrs.	519-337-8221
7.	Polymer Corp. Ltd.	Mr. I. Harris		Office Res.	519-337-8251 519-542-7174
8.	Dow Chemical Canada Ltd.	Mr. L. M. Tod		Office Res.	519-337-8282 519-344-9453
9.	Sun Oil Company Ltd.	Mr. O. J. Spork and Mr. Czornyj		24 hrs.	519-337-2301
10.	Shell Canada Ltd.	Mr. T. Barry		24 hrs.	519-862-1491
11.	Dupont of Canada Ltd.	Mr. L. Orbane Mr. W. I. Lewis		24 hrs.	519-862-1445
12.	Allied Chemical of Canada Ltd.	Mr. H. J. Bohuis		24 hrs.	519-862-1481
13.	Ontario Hydro Electric Commission	Mr. M. P. Hicks		24 hrs.	519-867-2663 Ext. 407
	Commission			Night Ex	
14.	Canadian Industries Ltd.	Mr. R. Andres Mr. T. B. Lynch		24 hrs. Res.	519-867-2739 519-542-7891 519-542-9905
15.	Police Village of Sombra	Mr. R. Tomlin		Res.	519-892-3434

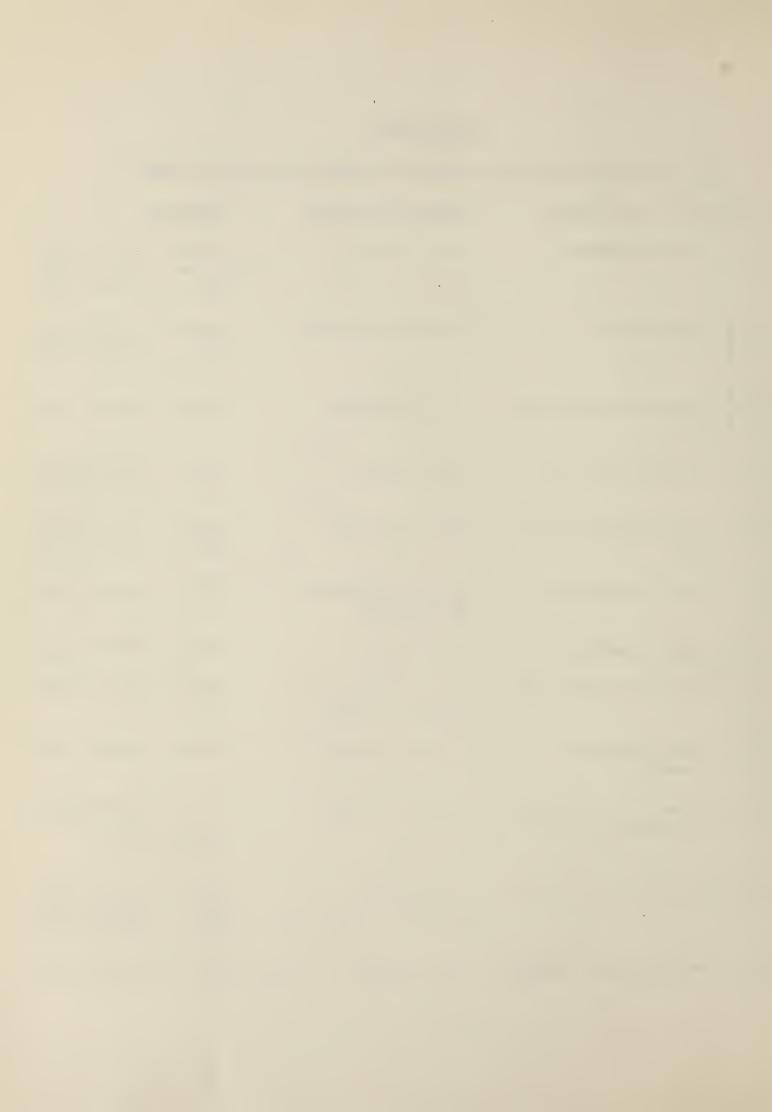


TABLE X600.4 (cont'd)

Location of Water Works		Persons to Contact	Telephone	
16.	Chinook Chemical Corp. Ltd.	Mr. M. E. Miller	Bus. Res.	519-892-3411 519-336-4656
17.	Sombra Twp. (Leeland Gdns.)	Mr. R. Tomlin Mr. Lee		519-892-3434 519-892-3593
18.	Police Village of Port Lambton	Mr. G. Atkins	Res.	519-677-5235
19.	Town of Tilbury	Mr. P. Marchand	Office Pumphouse Res.	519-682-2141 519-682-0481 519-
20.	Tilbury N. Twp.	Mr. D. Caza	Office Pumphouse Res.	519-694-3115 519-694-3313 519-687-2548
		Mr. C. Chauvin	Res.	519-694-3039
21.	Town of Belle River	Mr. J. H. Chaseley	Office Res.	655 - 1
		Mr. L. Lesperance	Pumphouse	1189
22.	City of Windsor (Tecumseh)	Mr. Sid Arbour	Pumphouse Res.	519-735-4772 519-735-2564
23.	City of Windsor	Mr. Ed Loft	Plant Res.	519-254-1692 519-966-3572
24.	Ford Motor Co. of Canada	Mr. J. F. Kelton	Plant Res.	519-256-5555 519-945-2919
25.	Hiram Walker & Sons Ltd.	Mr. M. Sobolov	24 hrs. Res.	519-254-5171 519-969-3660
26.	Canadian Salt Co. Ltd	Mr. P. T. Nolan	24 hrs. Res.	519-256-3105 519-969-6917

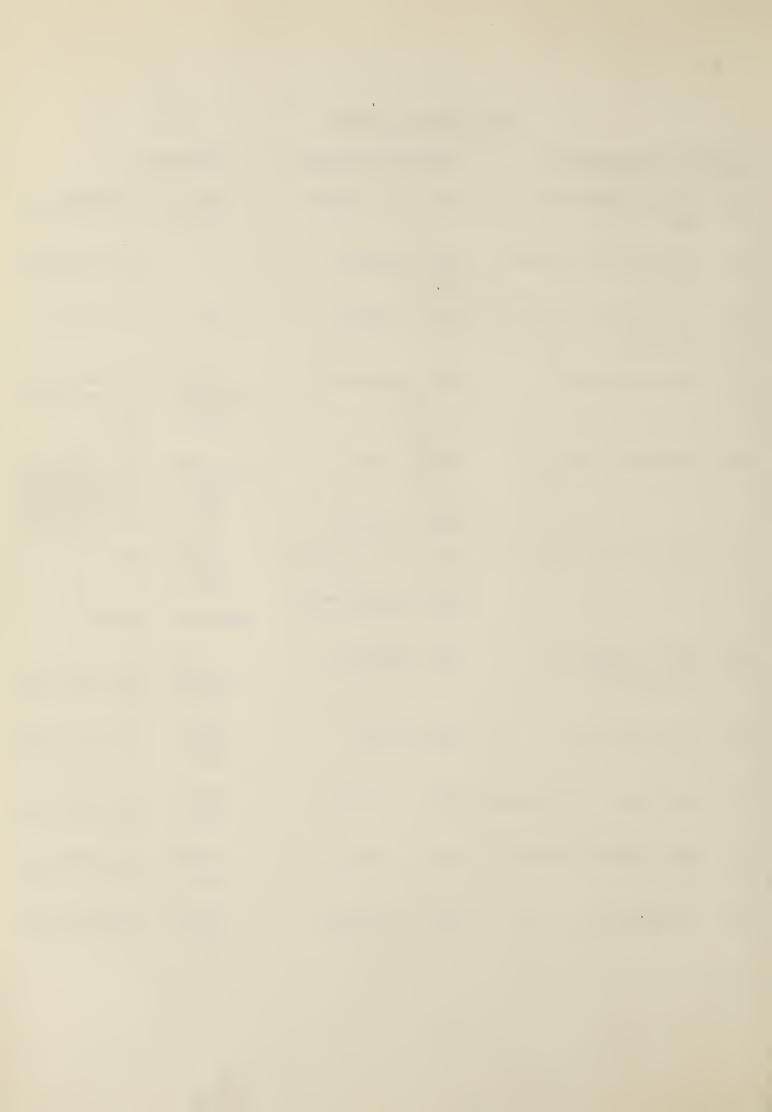
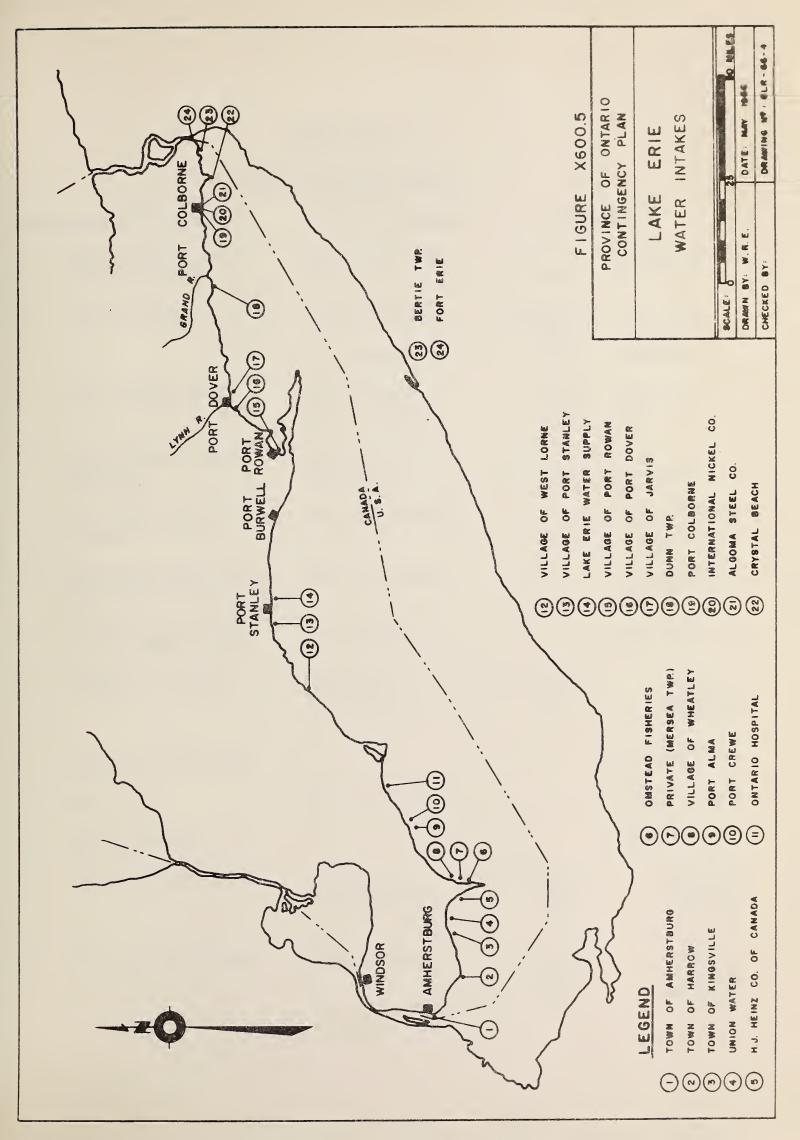
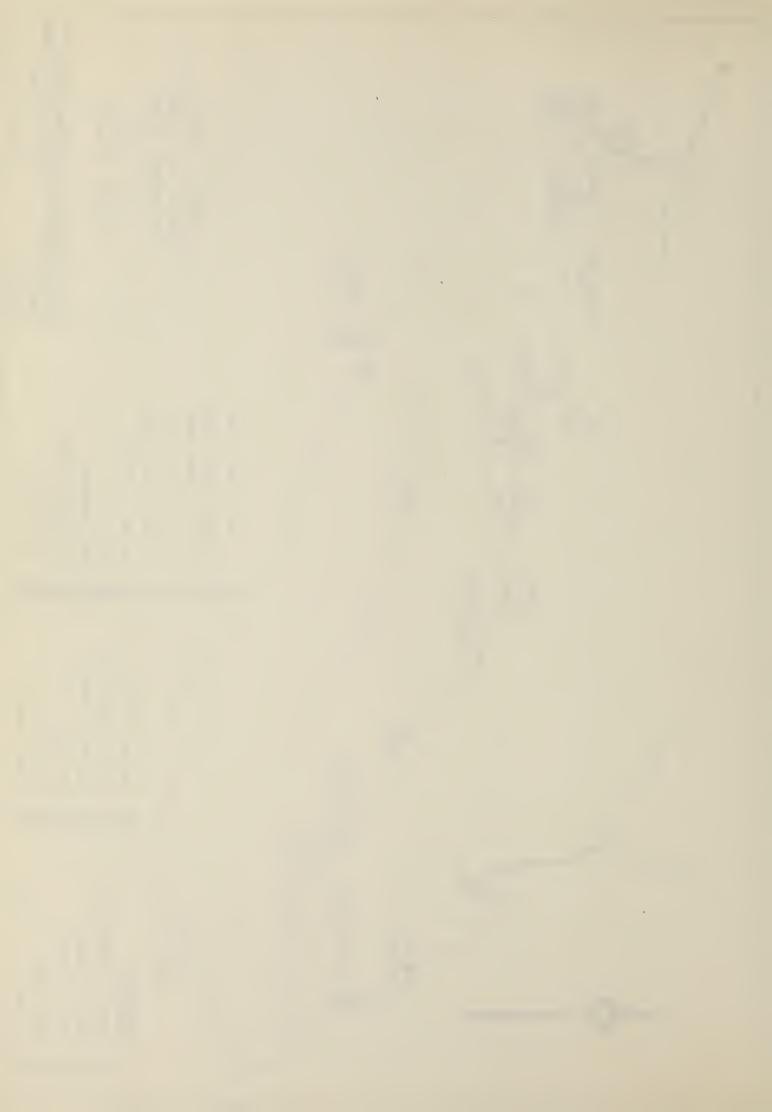


TABLE X600.4 (cont'd)

Location of Water Works		Persons to Contact Telephone		<u>ne</u>
27.	Town of Amherstburg (Allied Chemicals)	Mr. M. Paraschak	24 hrs.	519-736-2111
28.	Calvert Distillers Ltd.	Mr. R. Brinkman	24 hrs. Res.	519-736-2161 519-258-2214
		Mr. C. A. Shortt	Res.	519-736-4056







LAKE ERIE WATER USERS

Location of Water Works		Persons to Contact	Telephone	
1.	Town of Amherstburg Allied Chemical	Mike Paraschak Operator	Res.	736-2111 969-6675
2.	Town of Harrow	Charlie Hawkins	Pumphouse	738-2284
		B. E. Baltzer	Res. Clerk	738-4194 738-2523
3.	Town of Kingsville	(after hours) Mr. M. Wigle	Plant PUC	733-4411 733-4132
		1411 • 141 • 44 1910	100	700 4102
4.	Union Water System (Ruthven)	Harold Sanger or Bill Allsop	Plant	326-4447
5.	H.J. Heinz Co. of Canada	Mr. R. B. Marshall		519-326-5701
6.	Omstead Fisheries 1961 Ltd.	Mr. R. Omstead		519-825-4611
7.	Private (Mersea Twp.)	Mr. Myronyk		519-826-7167
8.	Village of Wheatley	Jim Arnew Robert Mills	Pumphouse PUC	825-4183 825-4211
		Nobelt Mills	Res.	825-4376
9.	Union Gas, Port Alma			519-689-4297
10.	Port Crewe	Mr. G. E. Crewe		519-689-4889
11.	Ontario Hospital			519-676-5431
12.	Village of West Lorne	E. Brown	Pumphouse	768-1820
		K. H. Phoenix	PUC Res.	768-1880 768-1183
13.	Village of Port Stanley	Howard Berry	Pumphouse	782-3251
			PUC Res.	782-3940 782-3940

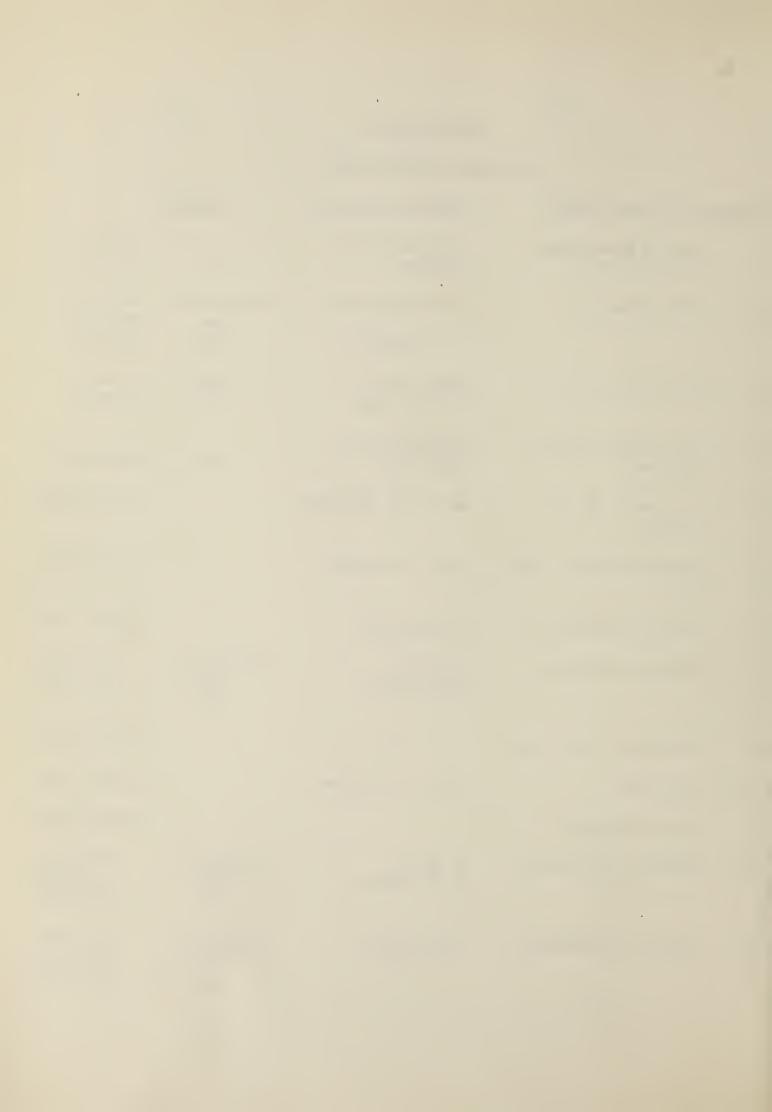
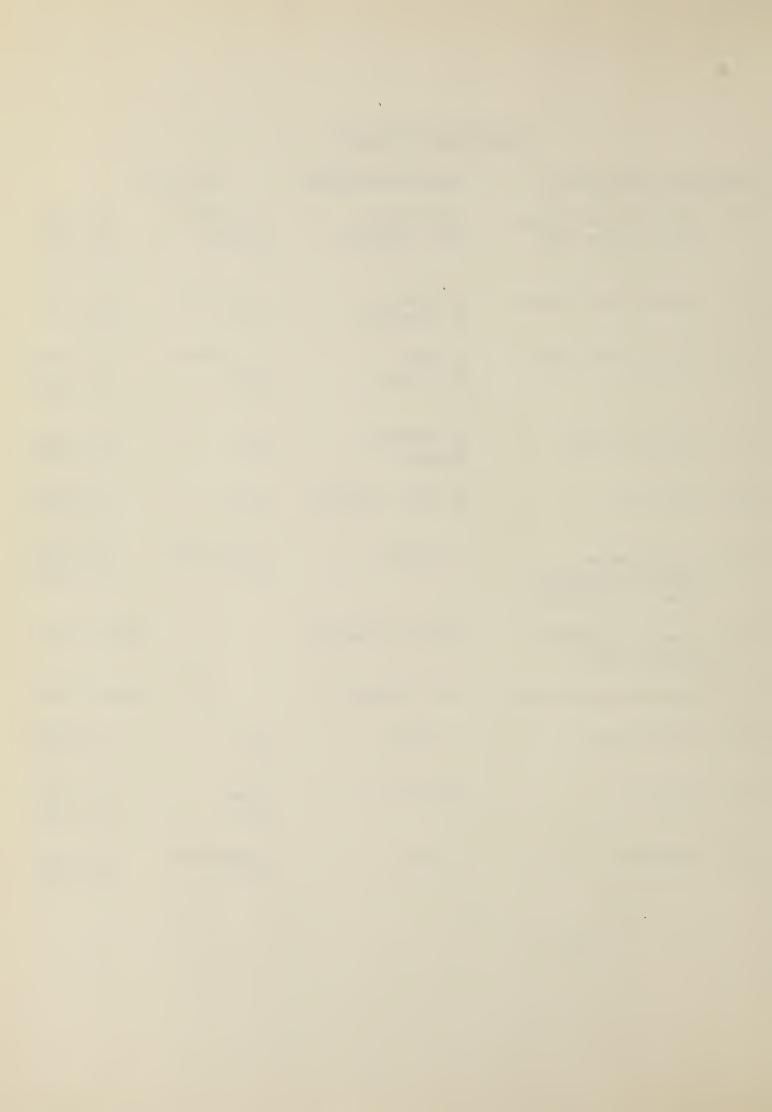
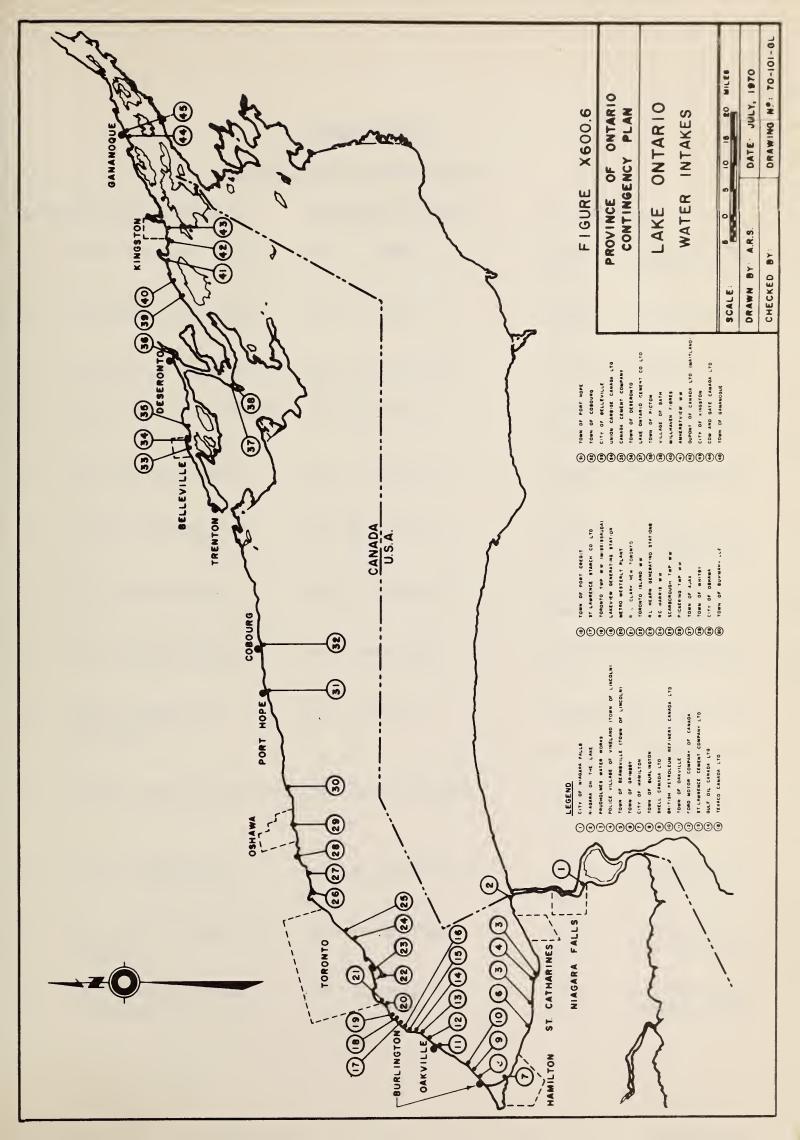


TABLE X600.5 (cont'd)

Loca	tion of Water Works	Persons to Contact	Telepho	ne
14.	Lake Erie Water Supply (Twp. of Yarmouth)	Reg Walters Alan Ladbrooke	Pumphouse Manager Res.	631-3680 433-3961 439-4836
15.	Village of Port Rowan	P. Baese H. Hammond	Pumphouse PUC	586-2113 586-2113
16.	Village of Port Dover	R. Barry D. Simpson	Pumphouse PUC Res.	583-1930 583-1632 583-0244
17.	Village of Jarvis	R. Reynolds Foreman	Plant Res.	587-2611 587-2694
18.	Dunn Twp.	R. Neff, Operator	Plant Res.	774-6311 774-4608
19.	Port Colborne (Welland Canal near inlet from Lake Erie)	J. Farbiak	Pumphouse Res.	834-3363 834-9475
20.	International Nickel Company Ltd.	Mr. W. B. Banker		416-834-3611
21.	Algoma Steel Corp. Ltd.	Mr. R. Fabbio		416-835-1103
22.	Crystal Beach	C. Wood	WW Res.	869-2850 869-3405
23.	Bertie Twp.	Wilf Vye	Plant Res.	871-3551 871-0303
24.	Fort Erie	G. Rose	Pumphouse Res.	871-1605 871-1207





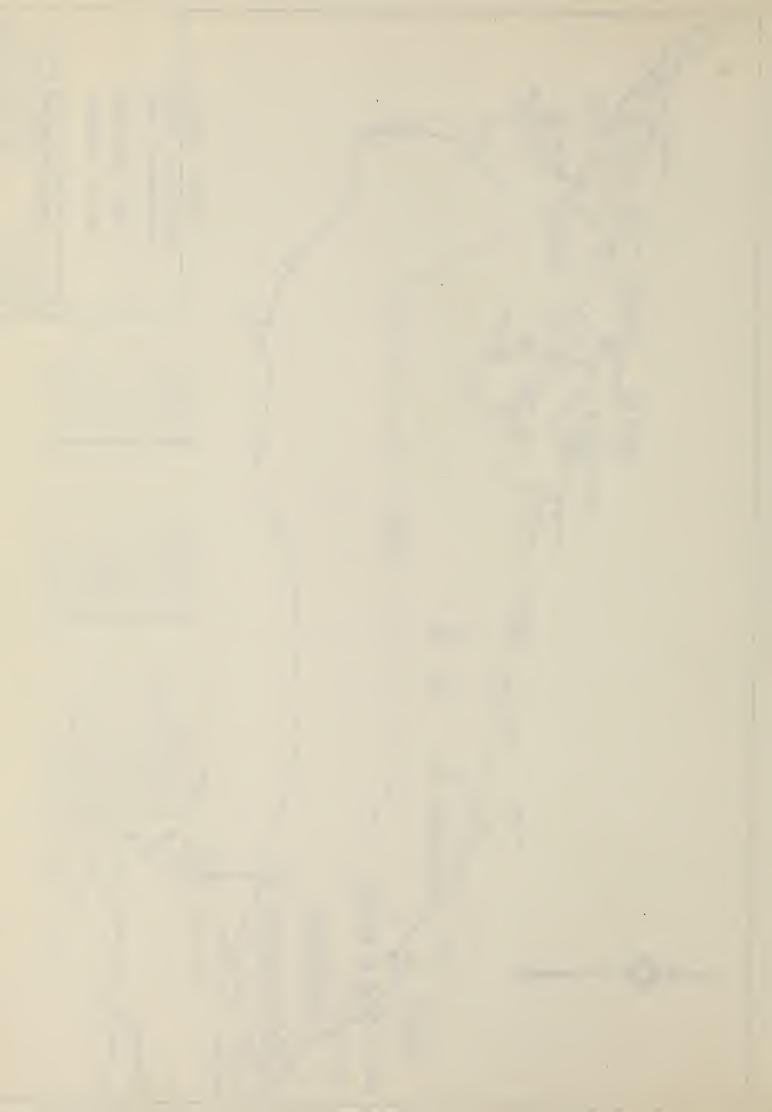


TABLE X600.6

LAKE ONTARIO WATER USERS

Location of Water Works		Persons to Contact	Telephone	
1.	City of Niagara Falls	Mr. B. Read	Office Res.	416-295-4831 416-358-8853
2.	Niagara-on-the-Lake	Mr. G. Ball	Plant Res.	416-468-3452 416-468-7839
3.	Prudholmes Water Works	Mr. M. Kereluik	Office	416-562-4101
4.	Police Village of Vineland	Mr. M. Fretz	Office Res.	416-562-5123 416-562-5148
5.	Town of Beamsville	Mr. G. Burrows	Office Res.	416-563-7311 416-563-8509
6.	Town of Grimsby	Mr. W. Bullock	Office Res.	416-945-4323 416-385-4302
7.	City of Hamilton	Mr. W. Wheten	Office Res.	416-545-3055 416-522-7851
8.	Town of Burlington	Mr. Dave King	Office Res.	416-634-1851 416-634-9127
9.	Shell Canada Ltd. Oakville	Mr. Horwood	Office Res.	416-923-2481 Ext. 227 416-827-3457
10.	British Petroleum Refinery	Mr. Jack Lawrence	Office	416-827-1161 Ext. 201 416-845-2181
11.	Town of Oakville	Mr. N. Buttenshaw	Office Res.	416-845-3461 416-844-3458
12.	Ford Motor Company of Canada	Mr. W. D. Follis	Office Res.	416-845-2511 416-845-7755
13.	St. Lawrence Cement Company Ltd.	Mr. C. Coles	Office Res.	416-822-1653 416-844-6239



TABLE X600.6 (cont'd)

Location of Water Works		Persons to Contact	Telephone	
14.	Gulf Oil Canada Ltd.	Mr. P. J. Blundy	Office	416-822-4222 Ext. 264
			Res	416-845-0454
15.	Texaco Canada Ltd.	Mr S.J. Walker	Office Res.	416-443-7927 416-425-8563
16.	Town of Port Credit		PUC	416-278-3338
17.	St. Lawrence Starch Co.	Mr. J.A.D. Gray	Office	416-274-3671 Ext. 11
			Res.	416-278-7054
18.	Toronto Twp. WW (Mississauga)	Bill Kendall (OWRC)	Office	416-278-8471
19.	Lakeview Generating Station		24 hrs.	416-274-3461
20.	Metro Westerly Plant		24 hrs.	416-252-1272
21.	R.L. Clark - New Toronto (Goodyear Tire & Rubber Co. of Canada)		24 hrs.	416-367-8278
22.	Toronto Island WW		24 hrs.	416-367-8278
23.	R.L. Hearn Generating Station	Local 25383-Supervisor Local 25375-Control Rm.	Office	416-368-6767
24.	R.C. Harris WW		24 hrs.	416-694-3237
25.	Scarborough Twp. WW		24 hrs.	416-261-1300
26.	Pickering Twp. WW	Mr. P. Poulsson Mr. R. Hutchinson	Plant Res. Res.	416-839-1136 416-282-6664 416-668-5374

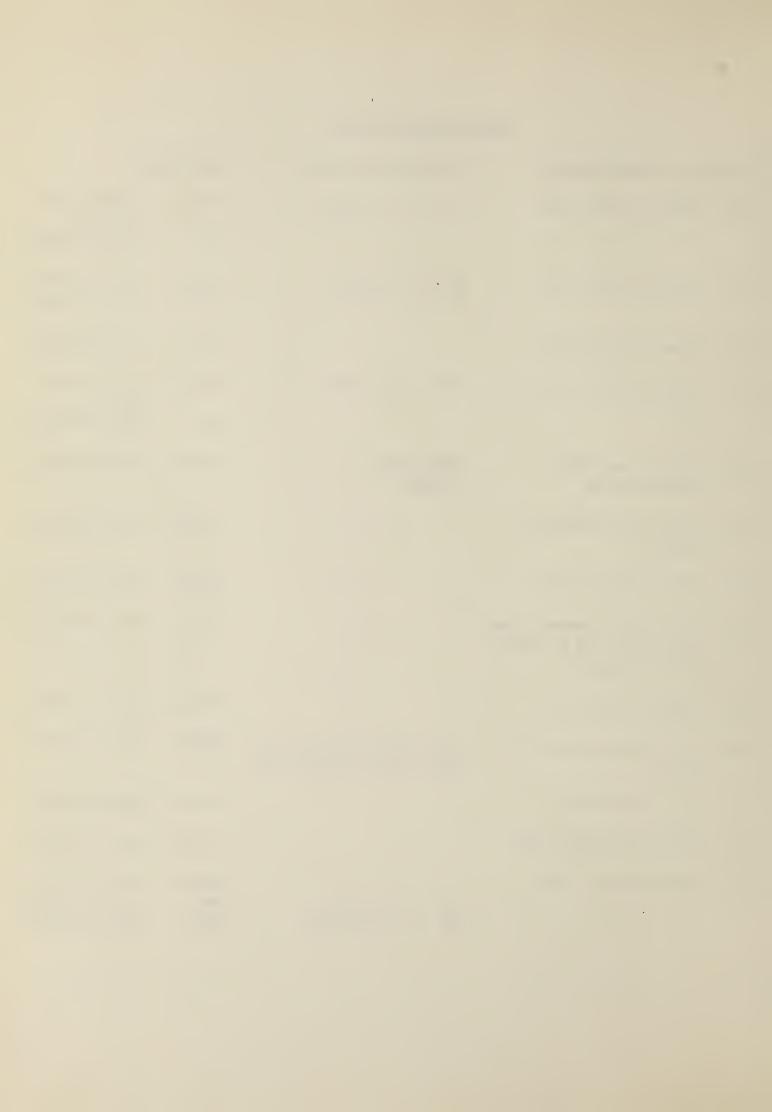


TABLE X600.6 (cont'd)

Location of Water Works		Persons to Contact	Telephone	
27.	Town of Ajax	Mr. W.M. Campbell	Office Res.	942-4550 839-5525
28.	Town of Whitby	Mr. H.C. Simpson	Office	668-5878 668-3416
29.	City of Oshawa	Mr. J. B. Annand	Res. Office Res. WW	668-2870 723-4623 723-9413 723-7233
30.	Town of Bowmanville	Mr. W. E. Archer	Office Res.	623-5471 623-3734
31.	Town of Port Hope	Mr. G.T. Van Bridger	Res. Office	623-3608 416-885-2269
		Mr. L. Nelson Mr. A. D. MacGillis	Res. Res. WW	416-885-5608 416-885-4892 416-885-2209
32.	Town of Cobourg	Mr. W. A. Woods	Office Res.	416-372-7112 416-372-5544
33.	City of Belleville	Mr. E.L. Burnham	Office Res.	613-962-3431 613-962-3109
34.	Union Carbide Canada Ltd.	Mr. W.G.G. Lindley	Office Res.	613-968-5501 613-962-7310
35.	Canada Cement Company	Mr. L. L. Johnston	Office Res.	613-962-2581 Unlisted
36.	Town of Deseronto		PUC	613-396-2444
37.	Lake Ontario Cement Co. Ltd.	Mr. Price	Office Res.	613-476-6330 613-476-3379
38.	Town of Picton	Mr. L. Tolley	Office Res.	416-476-2337 416-476-3053

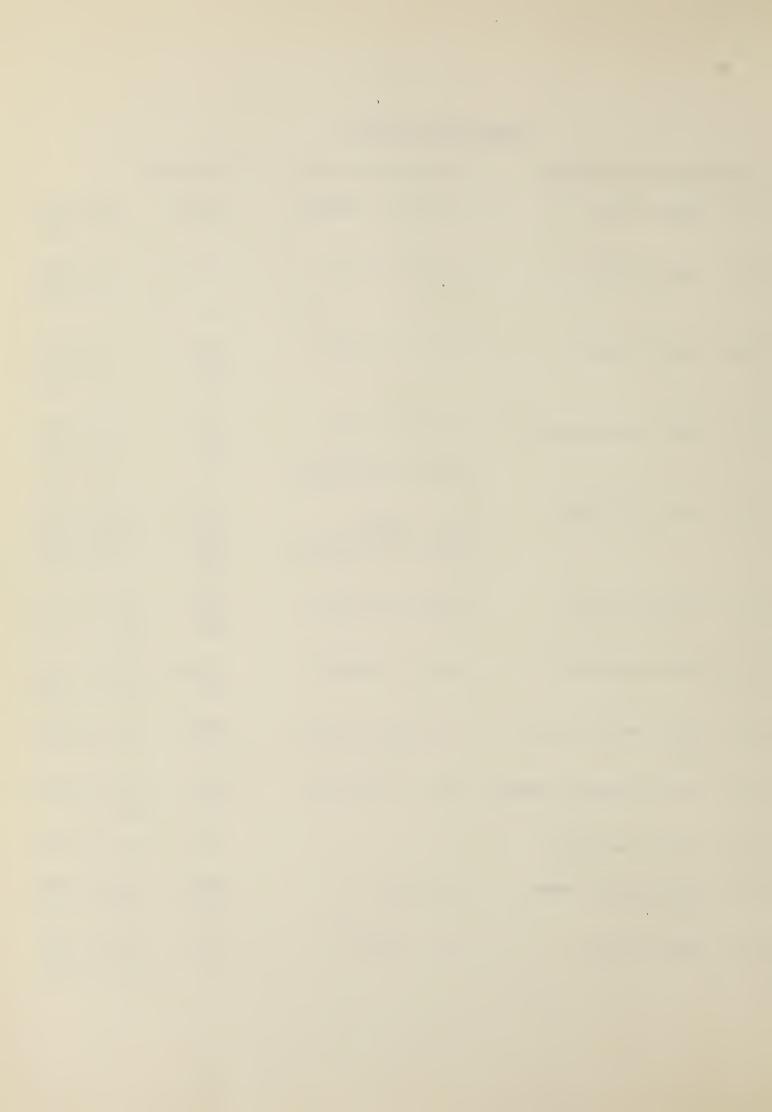
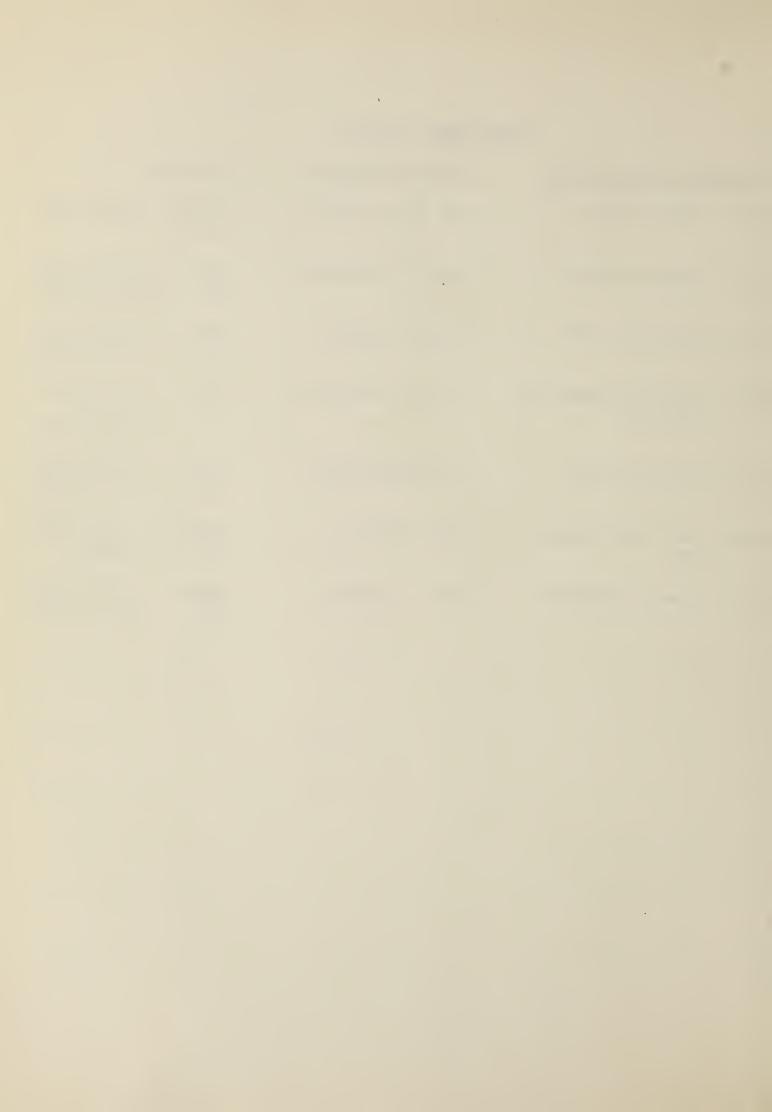
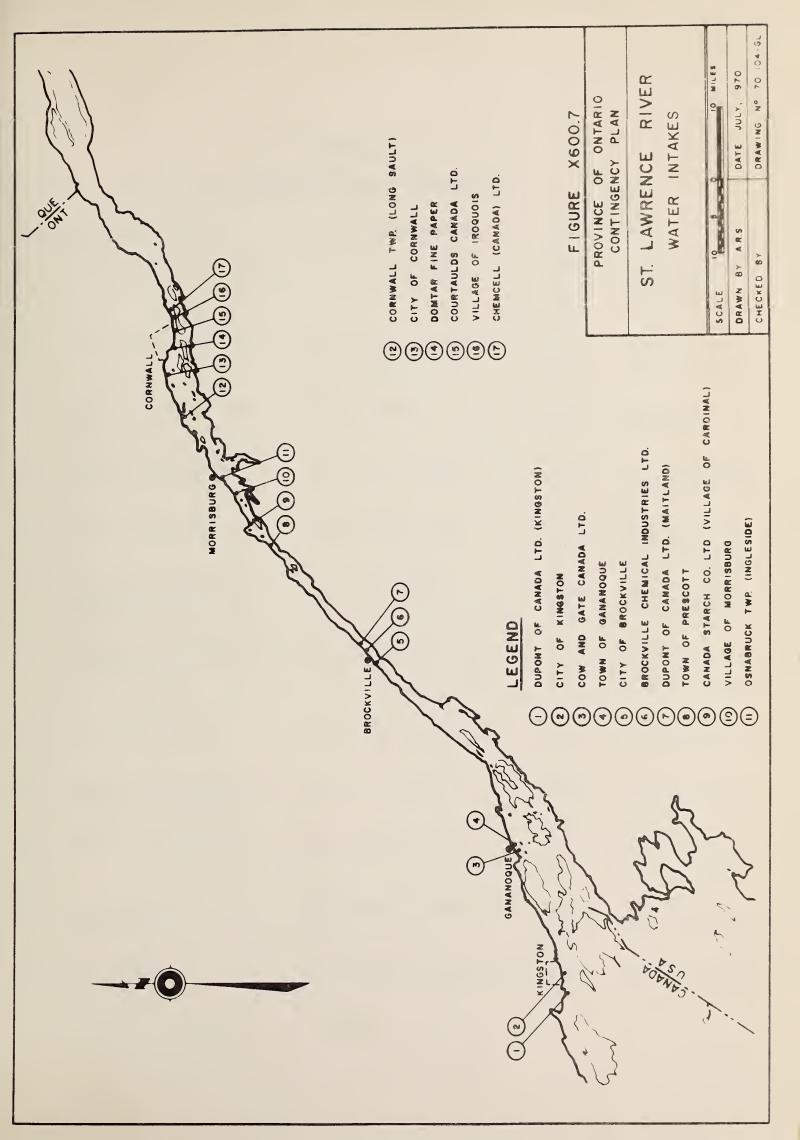


TABLE X600.6 (cont'd)

Location of Water Works		Persons to Contact	Telephone	
39.	Village of Bath	Mrs. J. Carruthers	Res. & Office	613-352-7880
40.	Millhaven Fibres	Mr. W.P. Humphreys	Office Res.	613-389-2210 613-389-1982
41.	Amherstview WW	Mr. Ross Blakely	Office Res.	613-386-3021 613-386-3440
42.	Dupont of Canada Ltd. (Maitland)	Mr. T.L. Easterbrook	Office Res.	613-348-3611 Ext. 617 613-345-1655
43.	City of Kingston	Mr. Warren Fallis	Office Res.	613-546-1181 613-548-8428
44.	Cow & Gate Canada Ltd.	Mr. J. Anstis	Office Res.	613-382-2178 Unlisted
45.	Town of Gananoque	Mr. J.F. Symons	Office Res.	613-382-4360 613-382-3963





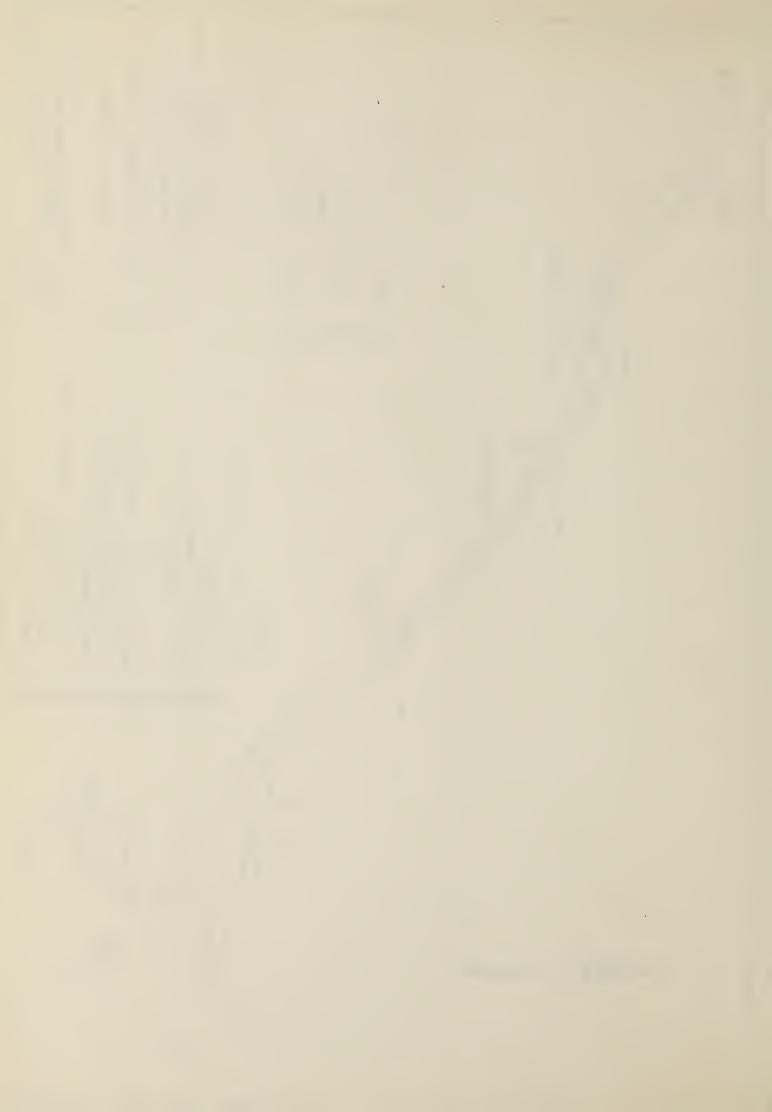


TABLE X600.7

ST. LAWRENCE RIVER WATER USERS

Location of Water Works		Persons to Contact	Telephone	
1.	Dupont of Canada Ltd.	Mr. G. R. Clarke	Office	613-544-6000 Ext. 392 613-389-0483
2.	City of Kingston	Mr. Warren Falls	PUC Res.	613-546-1181 613-548-8428
3.	Cow & Gate (Canada) Ltd.	Mr. J. Anstis	Office Res	613-382-2178 Unlisted
4.	Town of Gananoque	Mr. J. F. Symons	Office Res.	613-382-4360 613-382-3963
5.	City of Brockville	Mr. H. W. Little	Office Res.	613-342-6661 613-342-2193
6.	Brockville Chemical Industries Ltd.	Mr. A. R. Lyle	Office Res.	613-348-3681 613-345-5786
7.	Dupont of Canada Ltd. (Maitland)	Mr. T.L. Easterbrook	Office Res.	613-348-3611 Ext. 617 613-345-1655
8.	Town of Prescott	Mr. Foch Healey	Office Res.	613-925-3734 613-925-2514
9.	Canada Starch Co. Ltd. (Village of Cardinal)	Mr. A. Burwell	Office Res.	613-657-3131 613-657-3169
10.	Village of Morrisburg	Mr. Clar Van Allen	Office Res.	613-543-2504 613-543-3126
11.	Osnabruck Twp. (Ingleside)	Mr. Harvey Fickes	Office Res.	613-537-2362 613-527-2528
12.	Cornwall Twp. (Long Sault)	Mr. Roch Paul Boisvenue	Office Res.	613-933-1162 613-525-1100

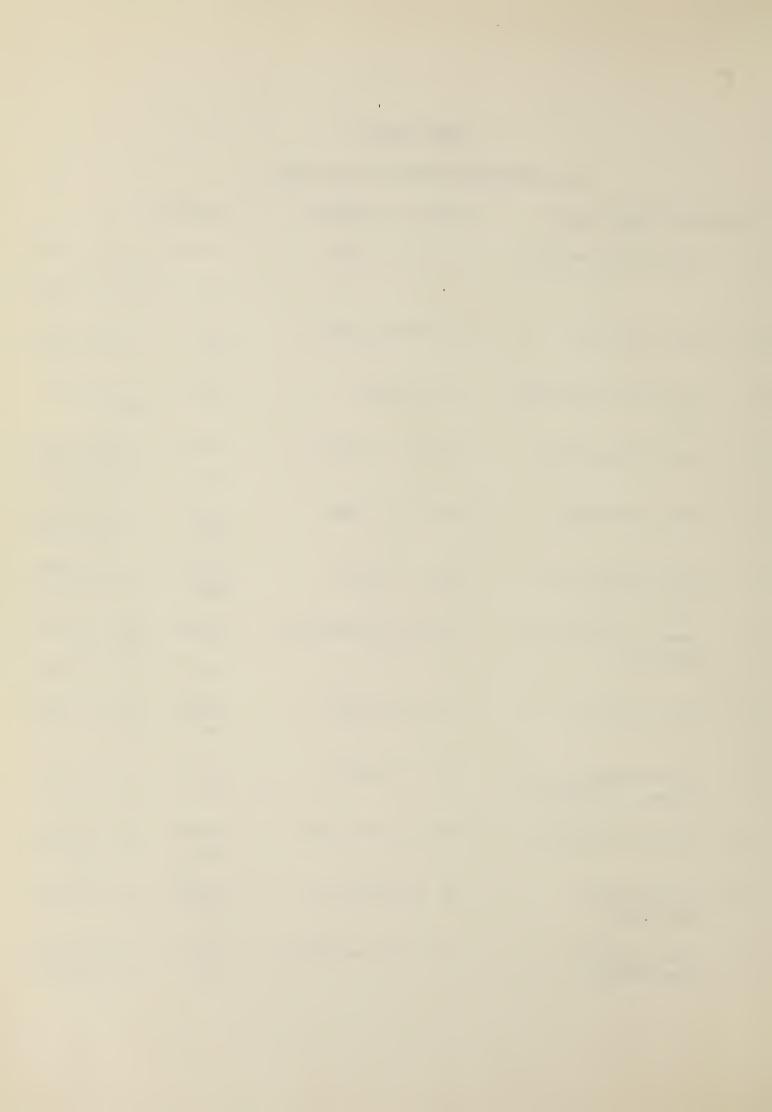
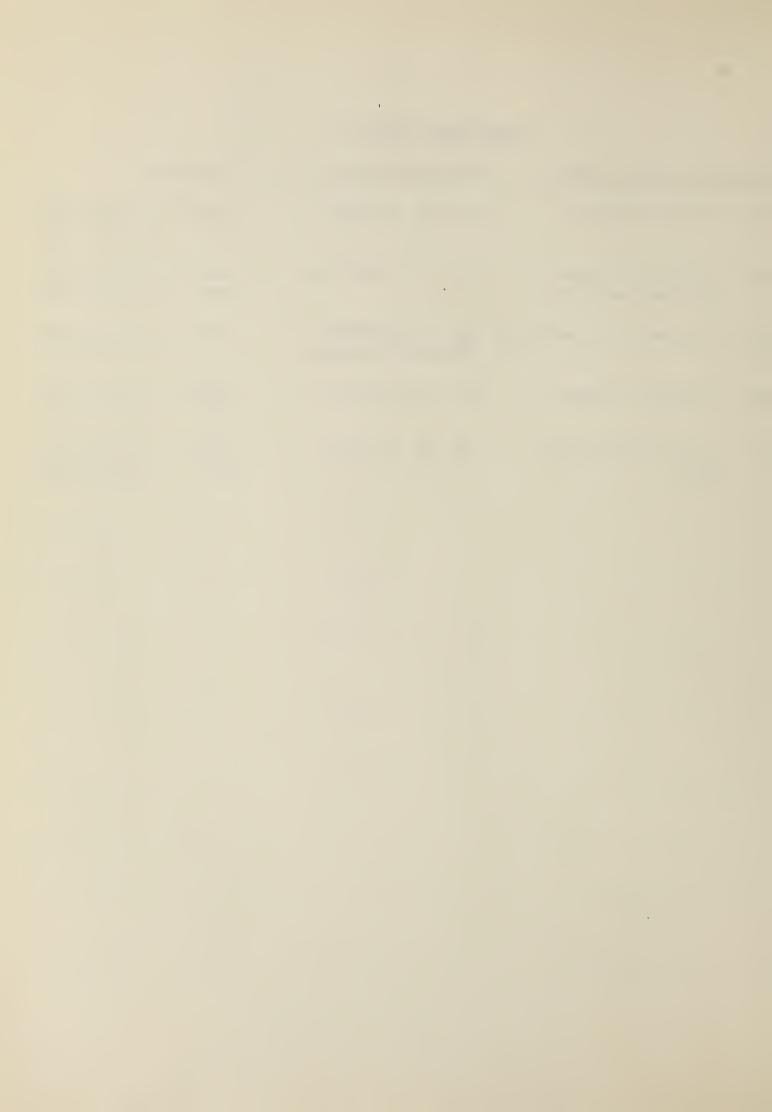
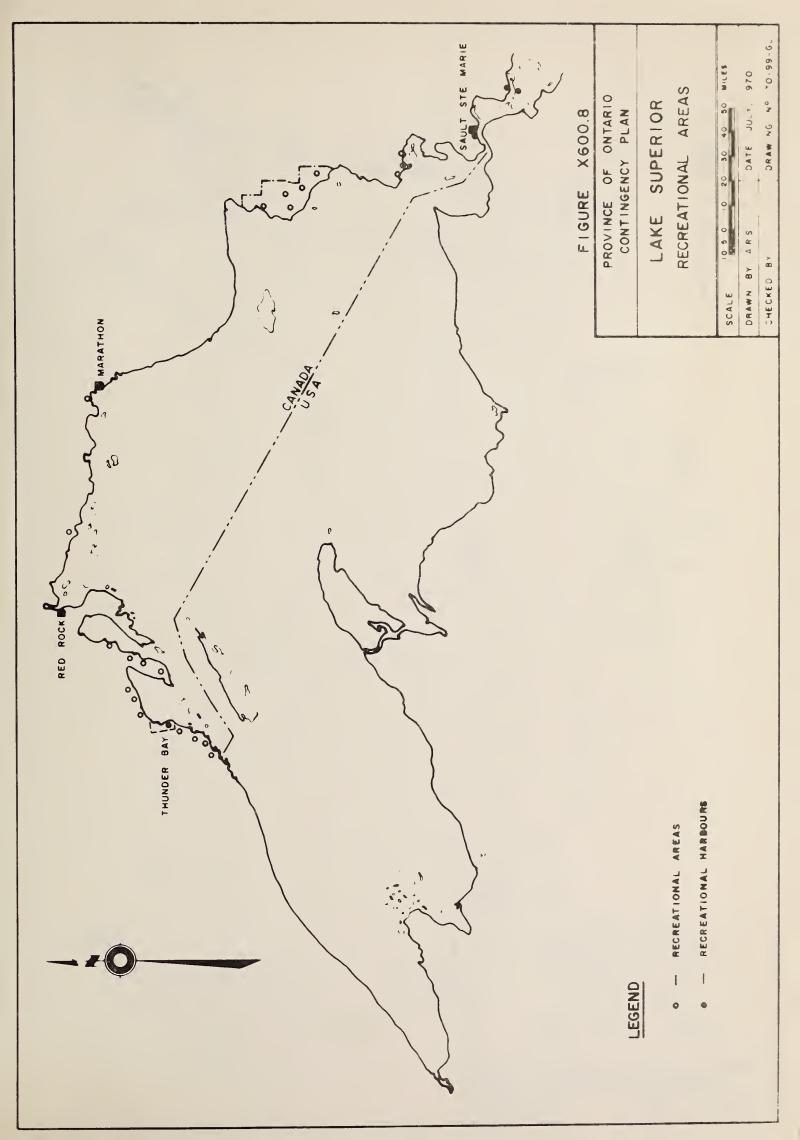


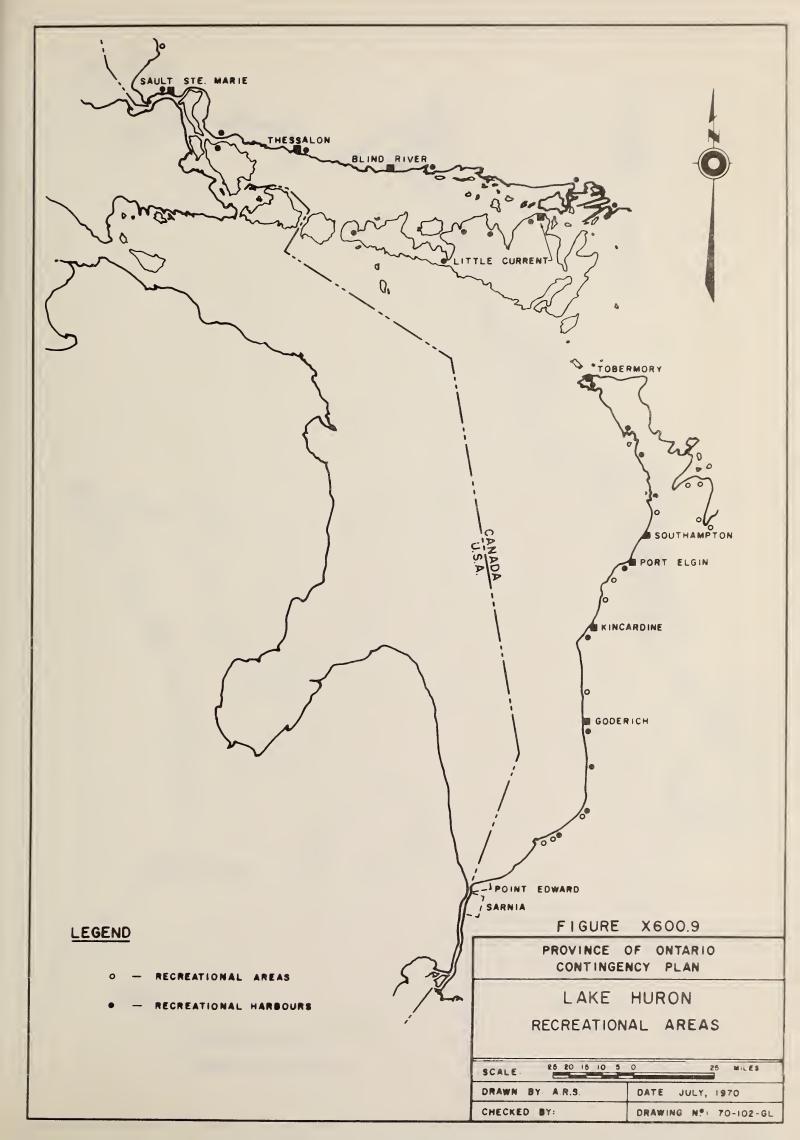
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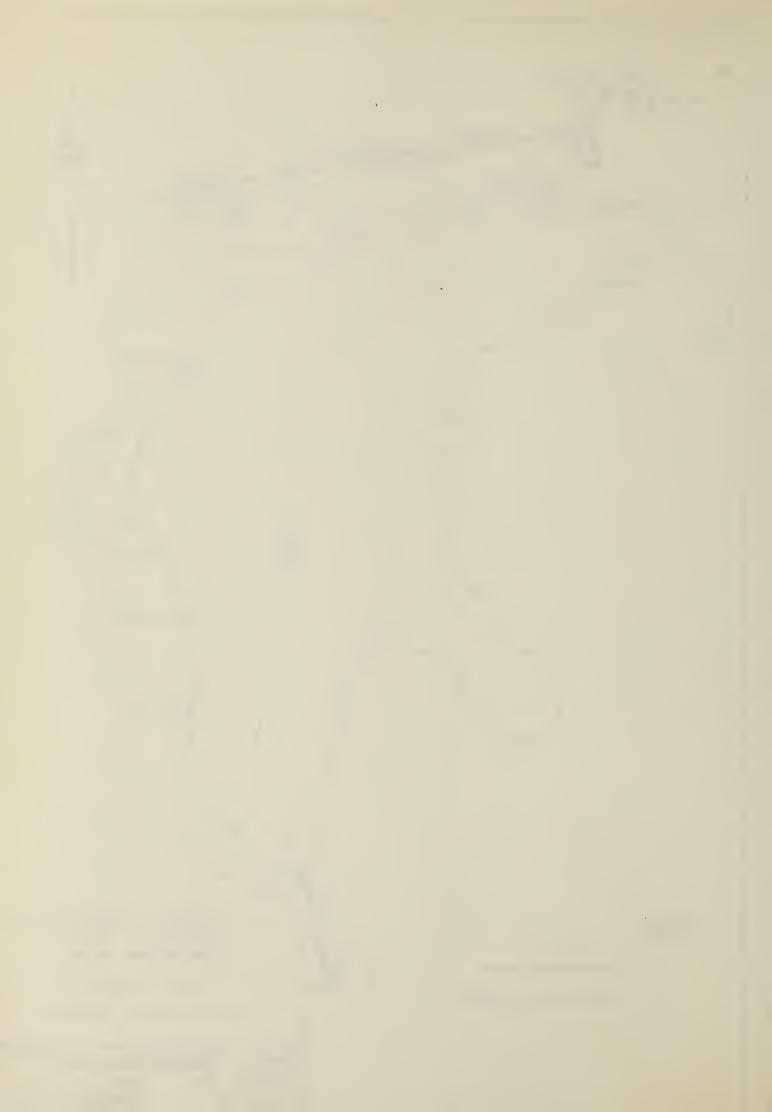
Location of Water Works		Persons to Contact	Telephone	
13.	City of Cornwall	Mr. M. A. Boyer	Office Res.	613-932-6252 613-932-9299
14.	Domtar Fine Paper (Howard Smith Div.)	Mr. I. E. Davidson	Office Res.	613-932-6620 613-933-5249
15.	Courtauld's (Canada) Ltd.	Mr. W. Sutcliffe Nights and Holidays	Office	613-933-1180 613-933-2711
16.	Village of Iroquois	Mr. Jack Fetterly	Office Res.	613-652-4841 613-652-4438
17.	Chemcell (Cornwall)	Mr. W. W. Cram	Office Res.	613-933-5822 613-933-4654

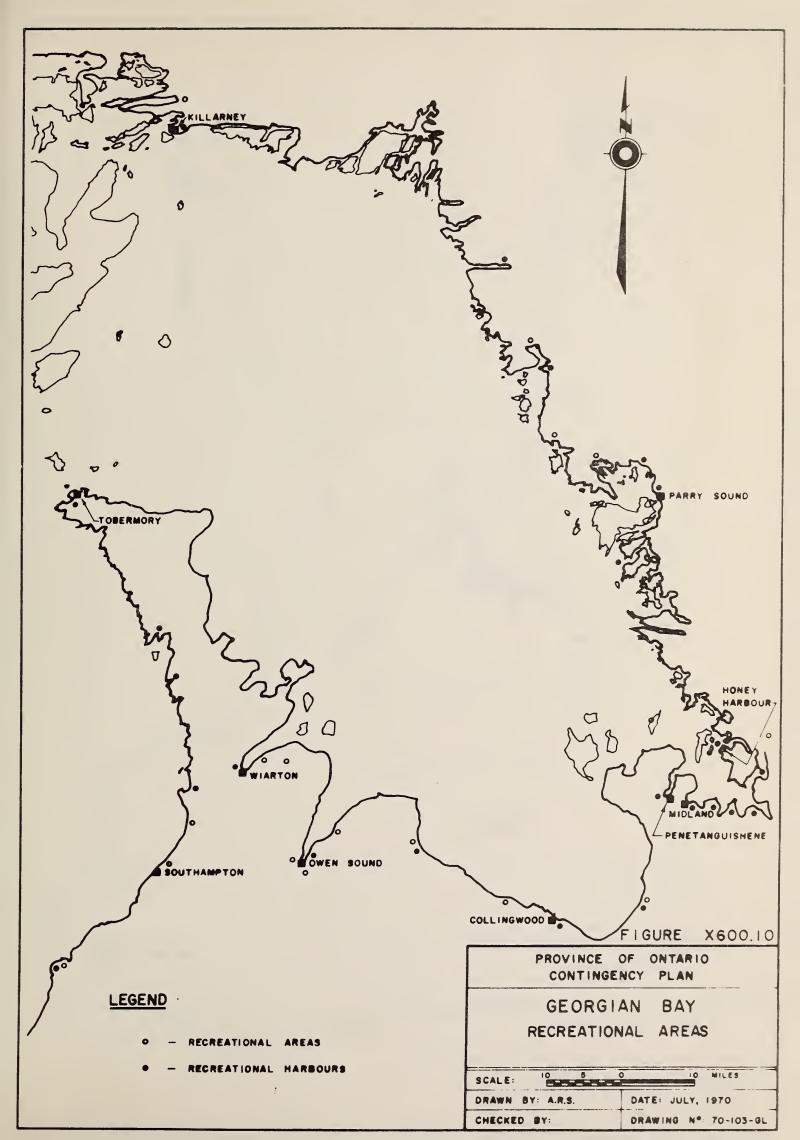


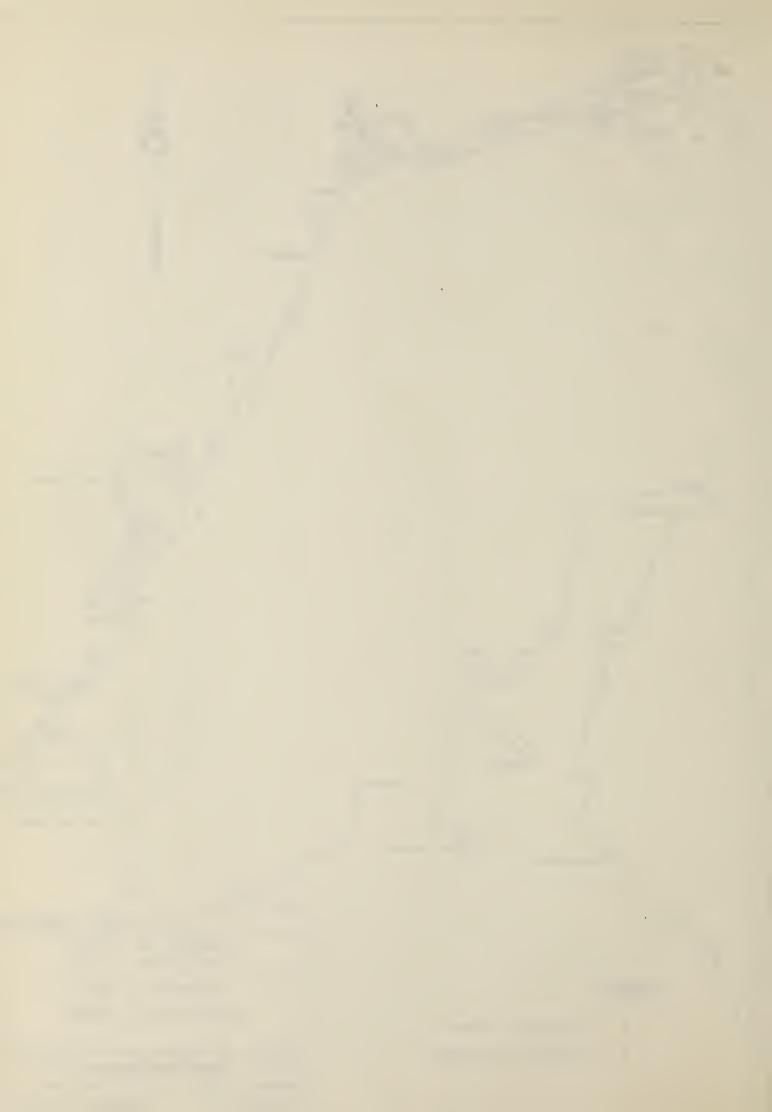


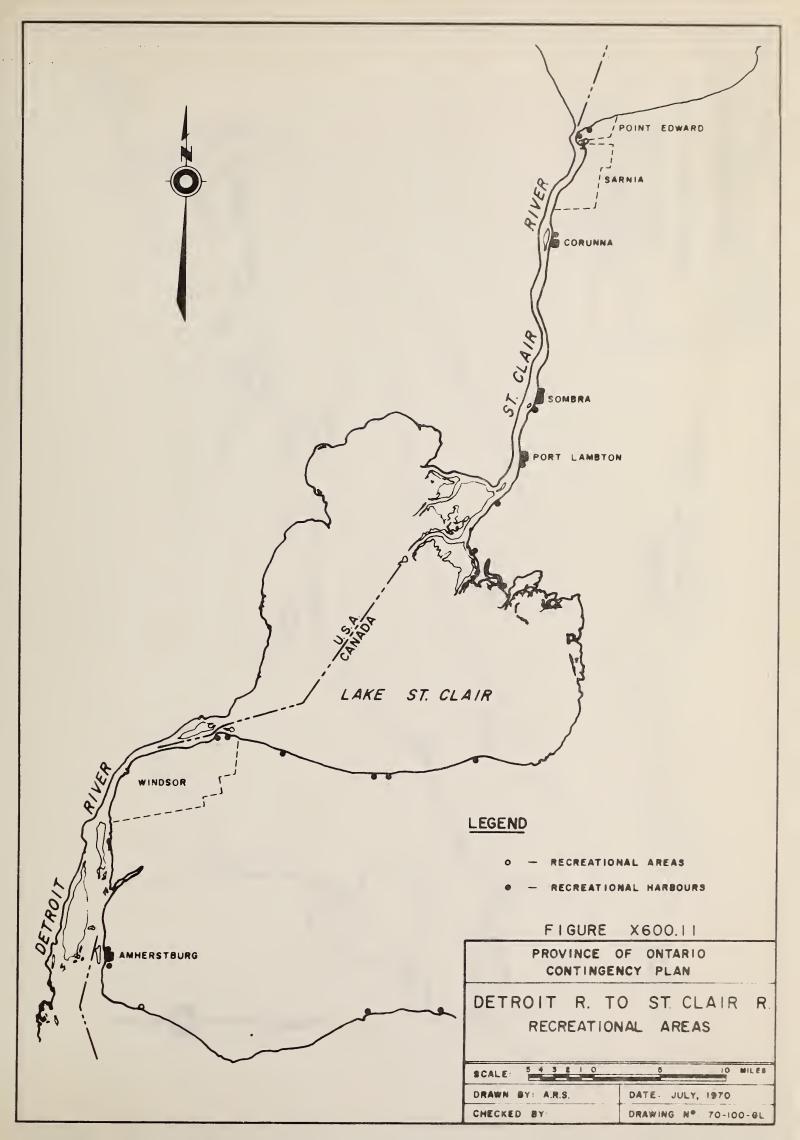




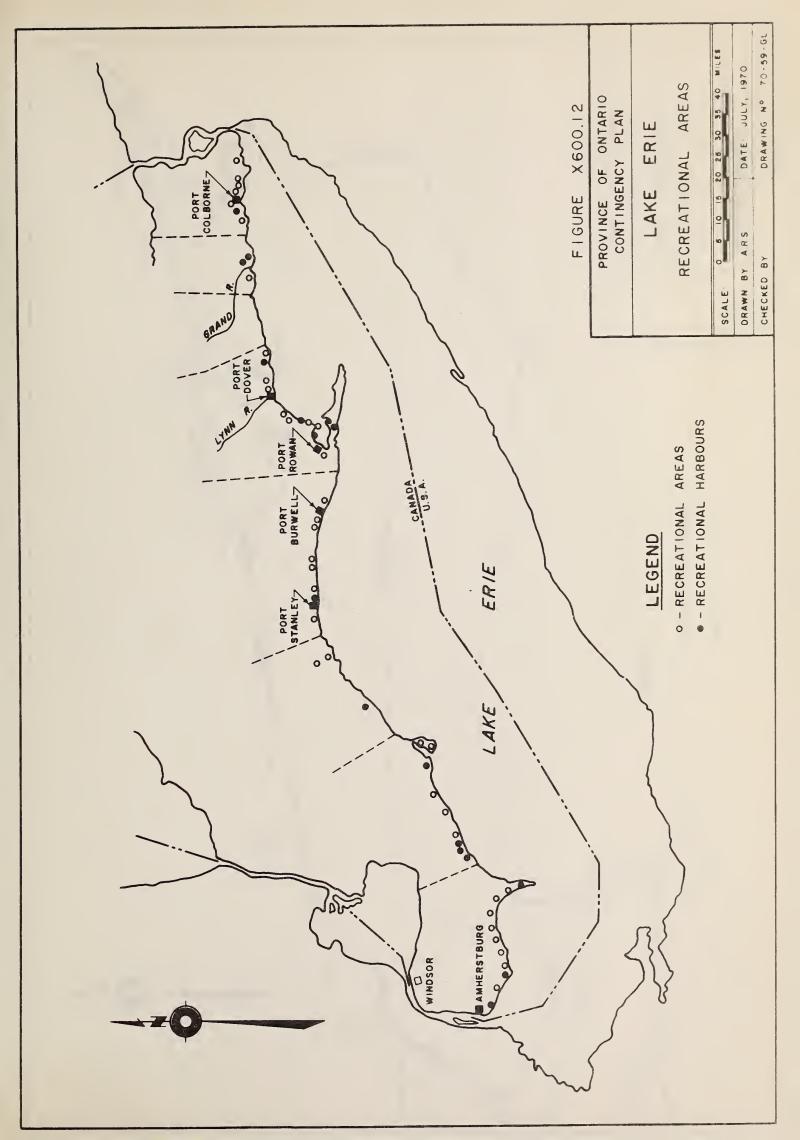




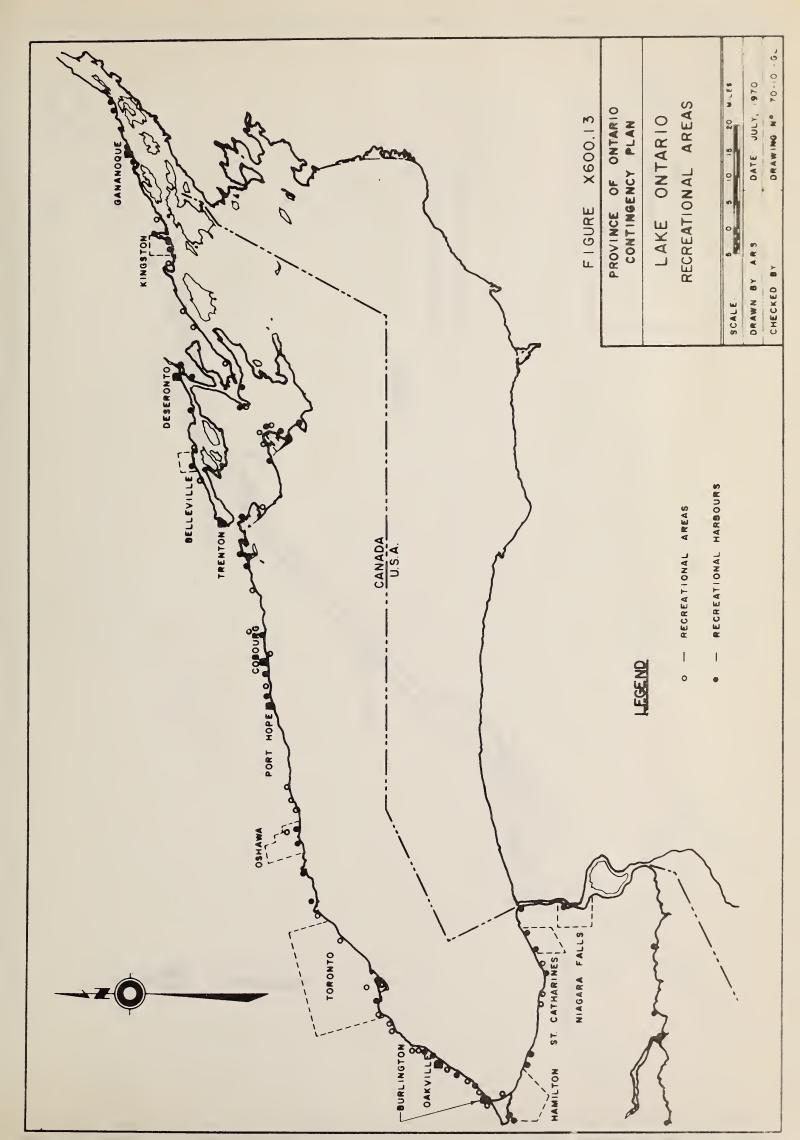




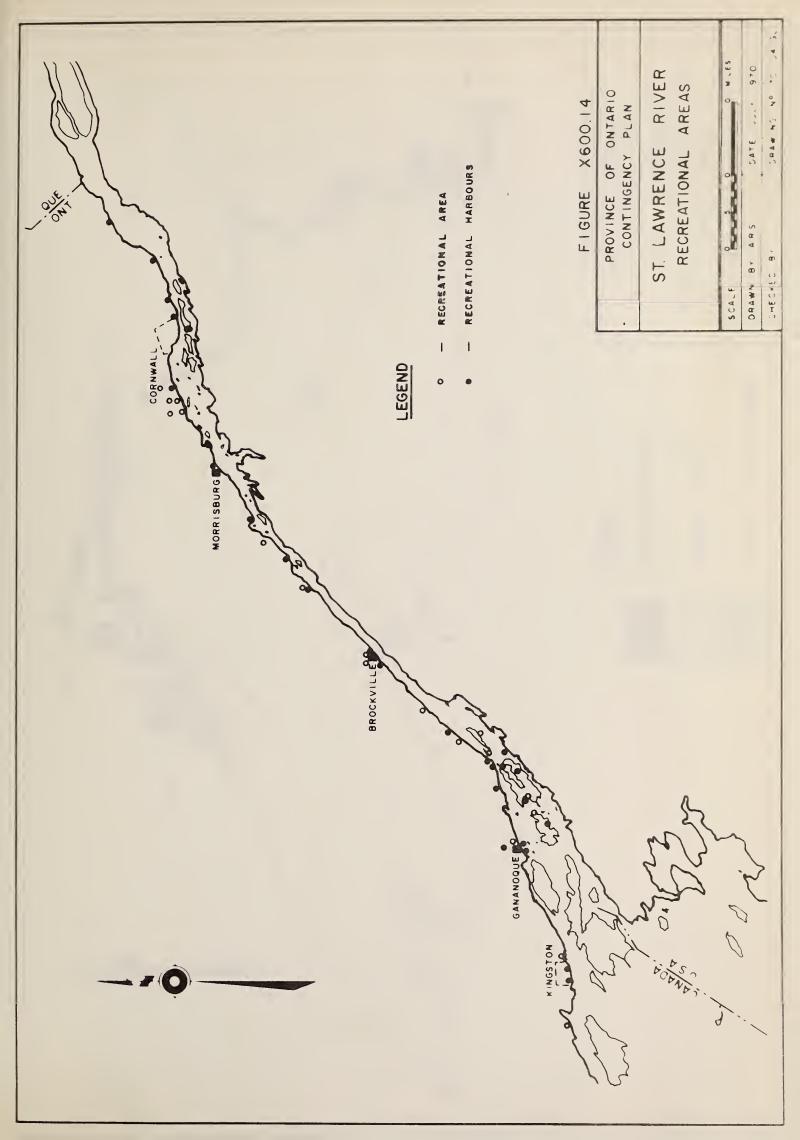




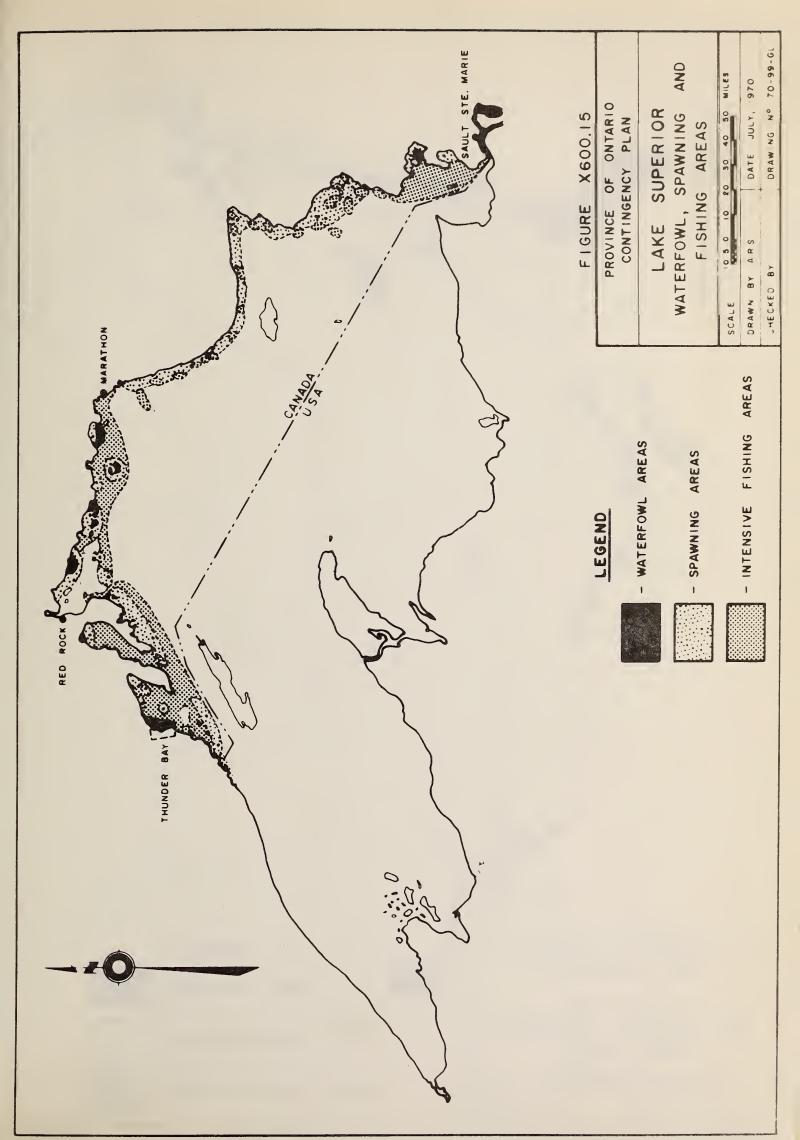




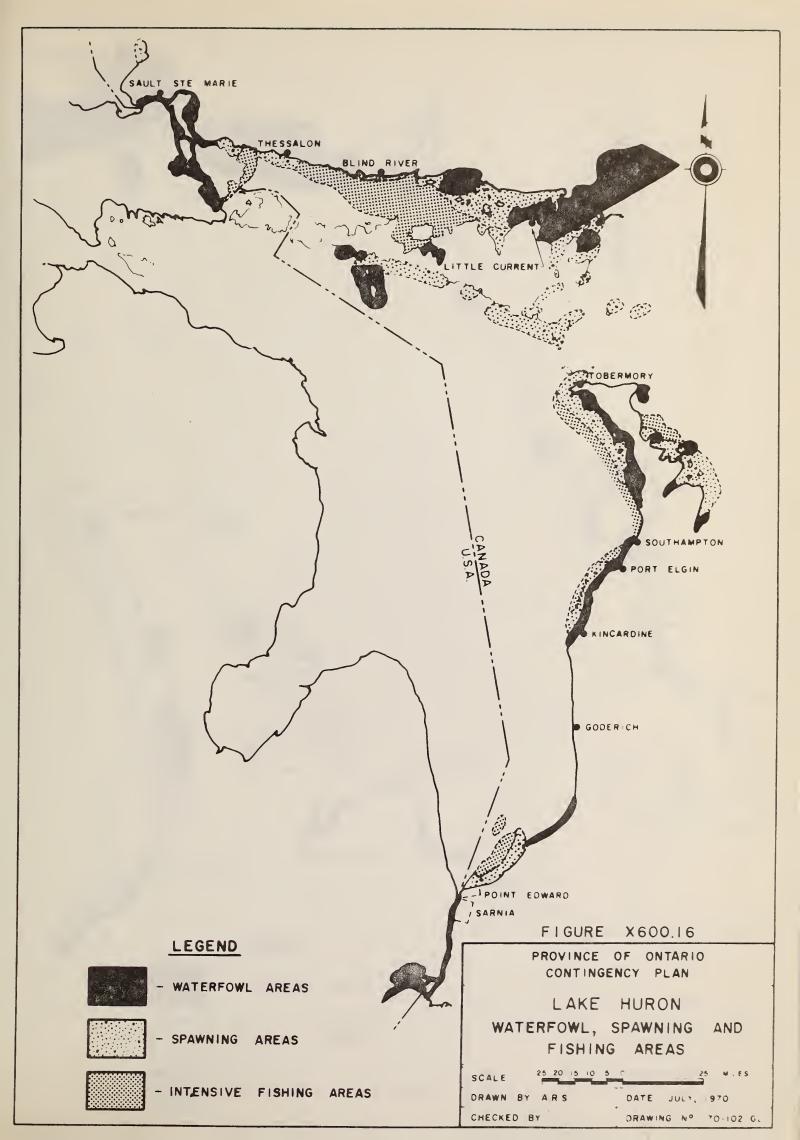




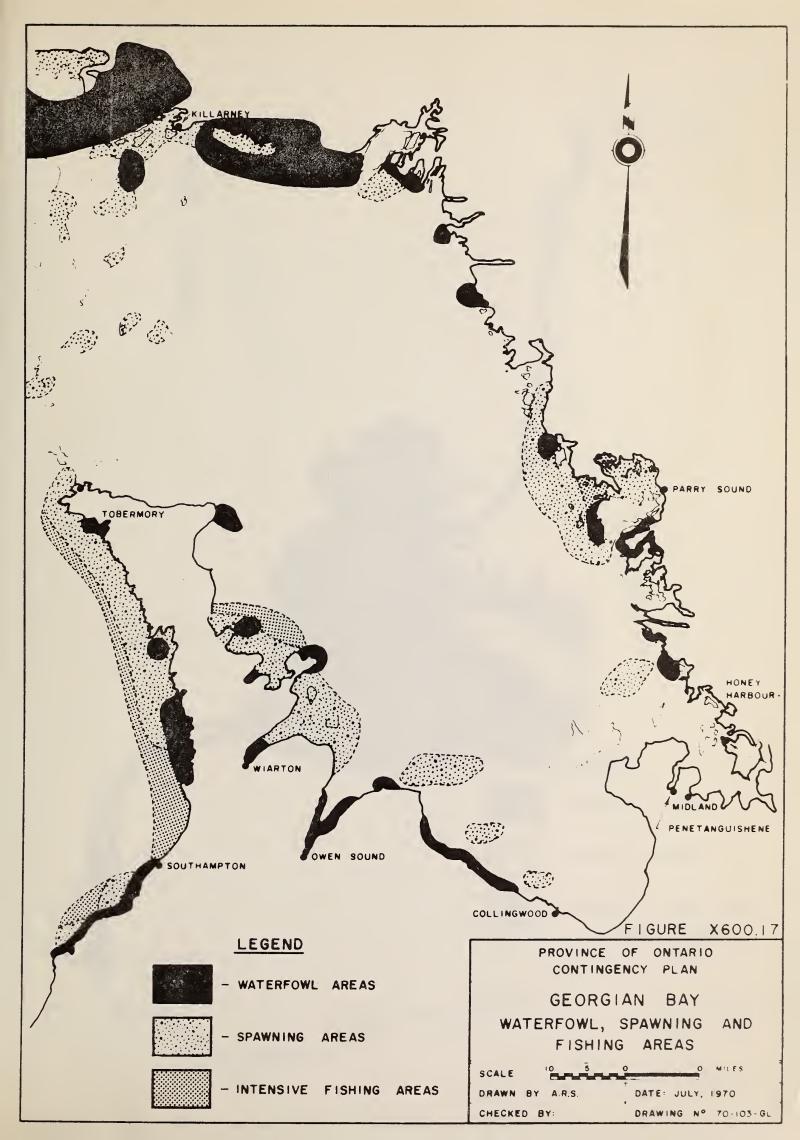




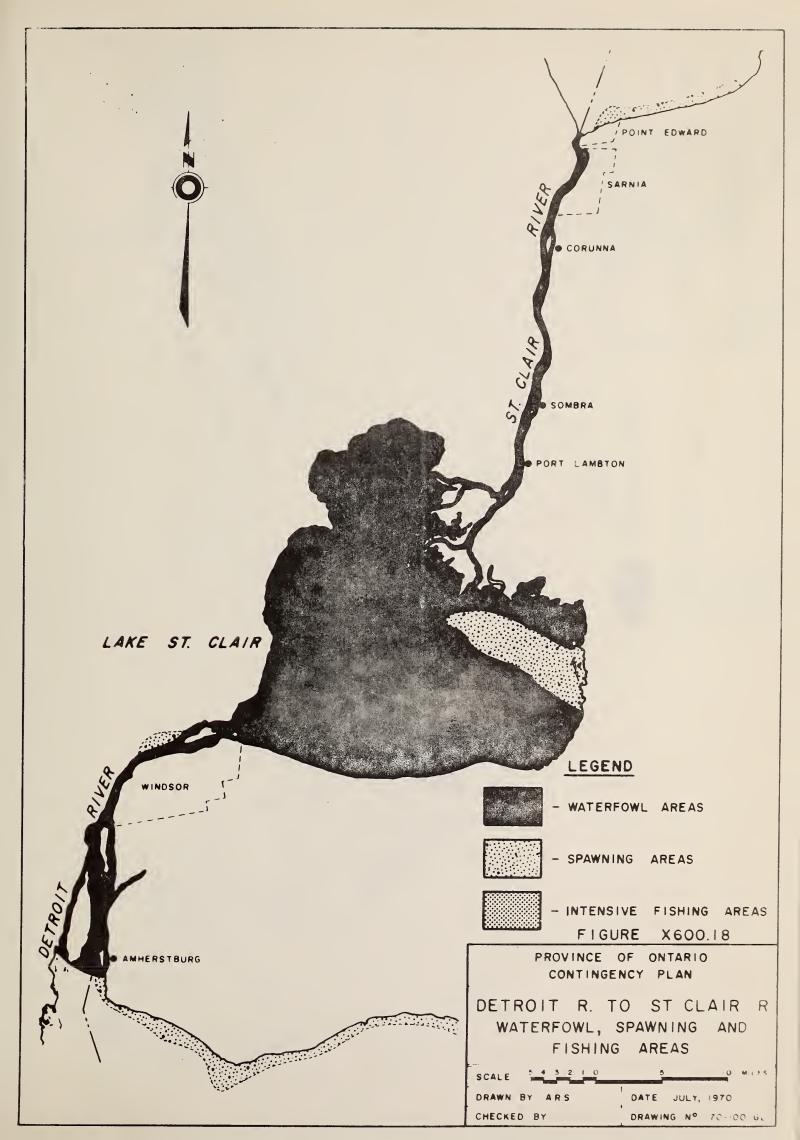




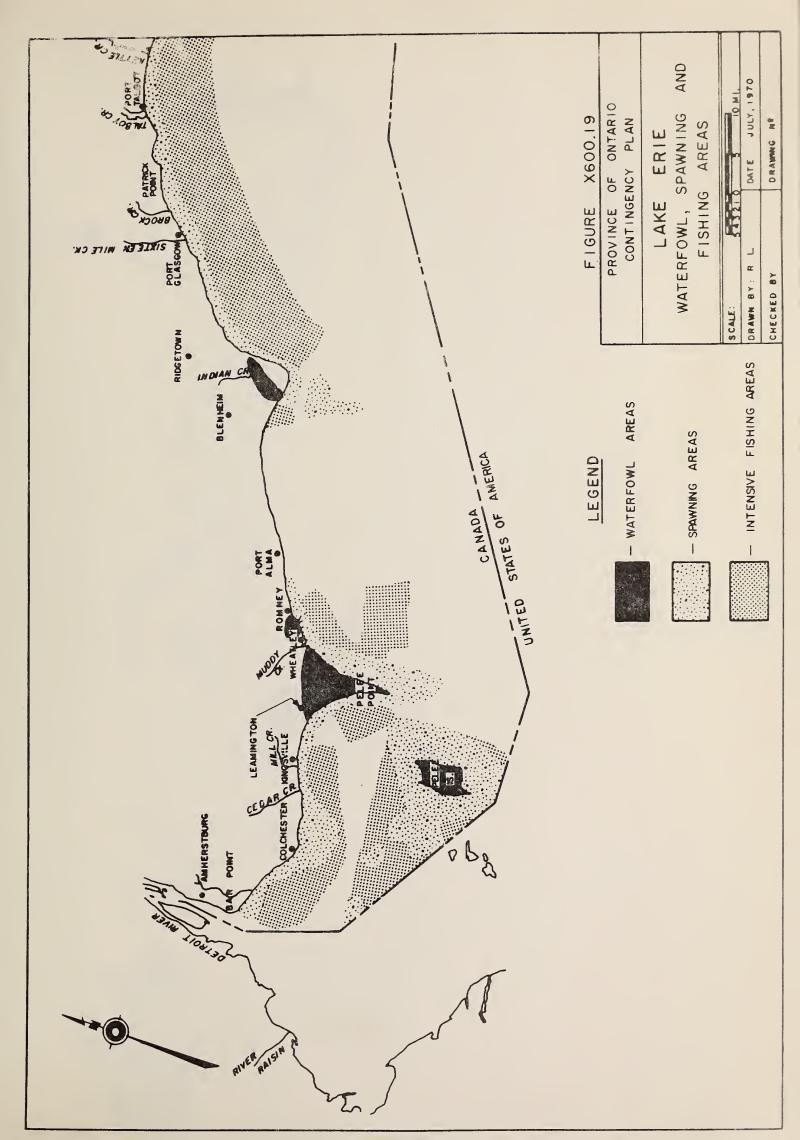


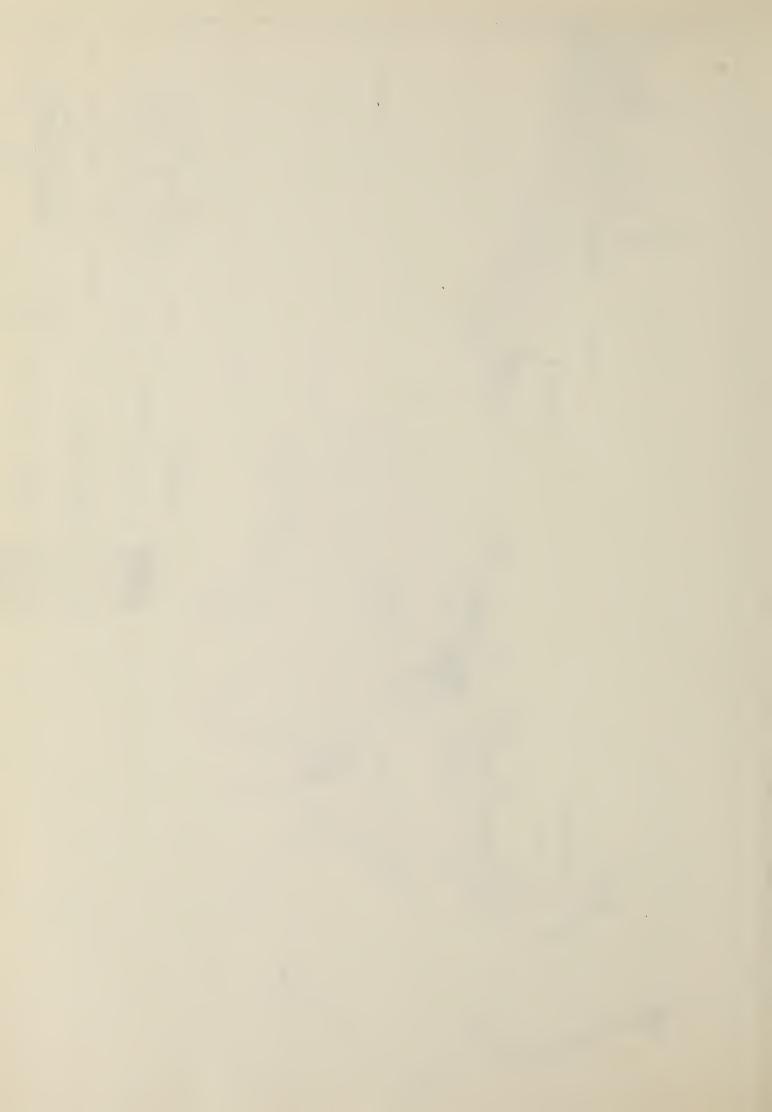


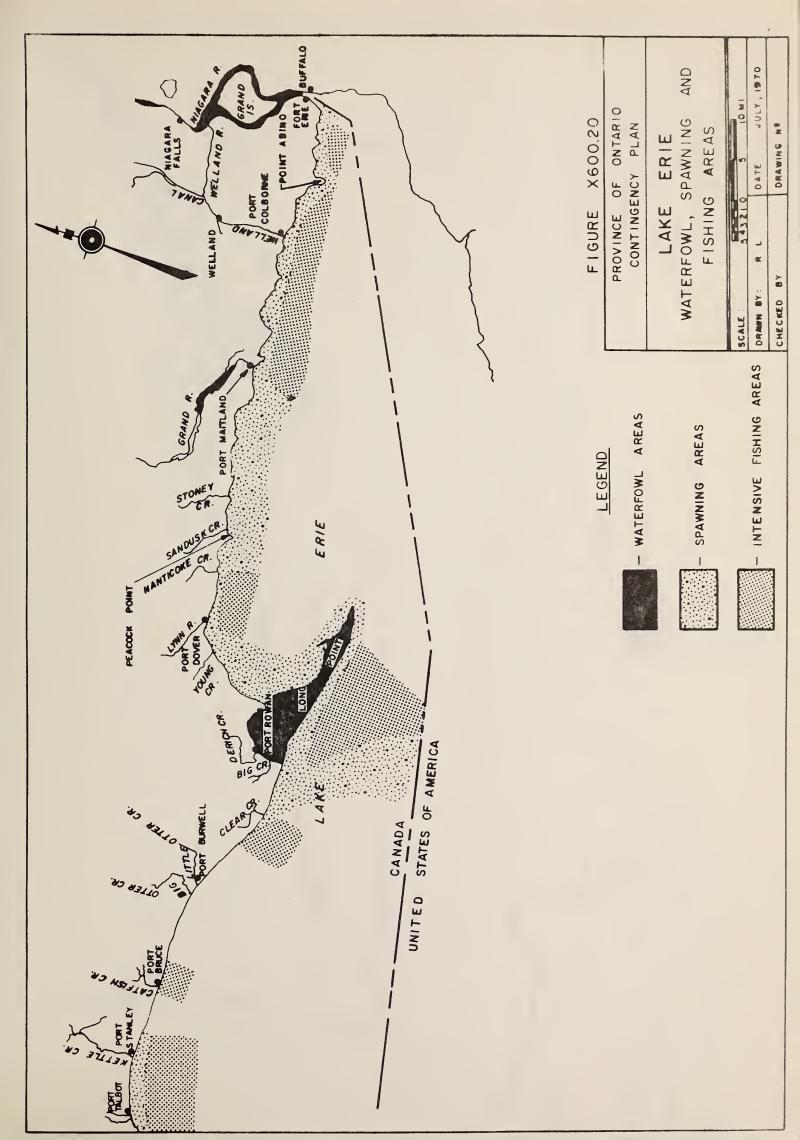


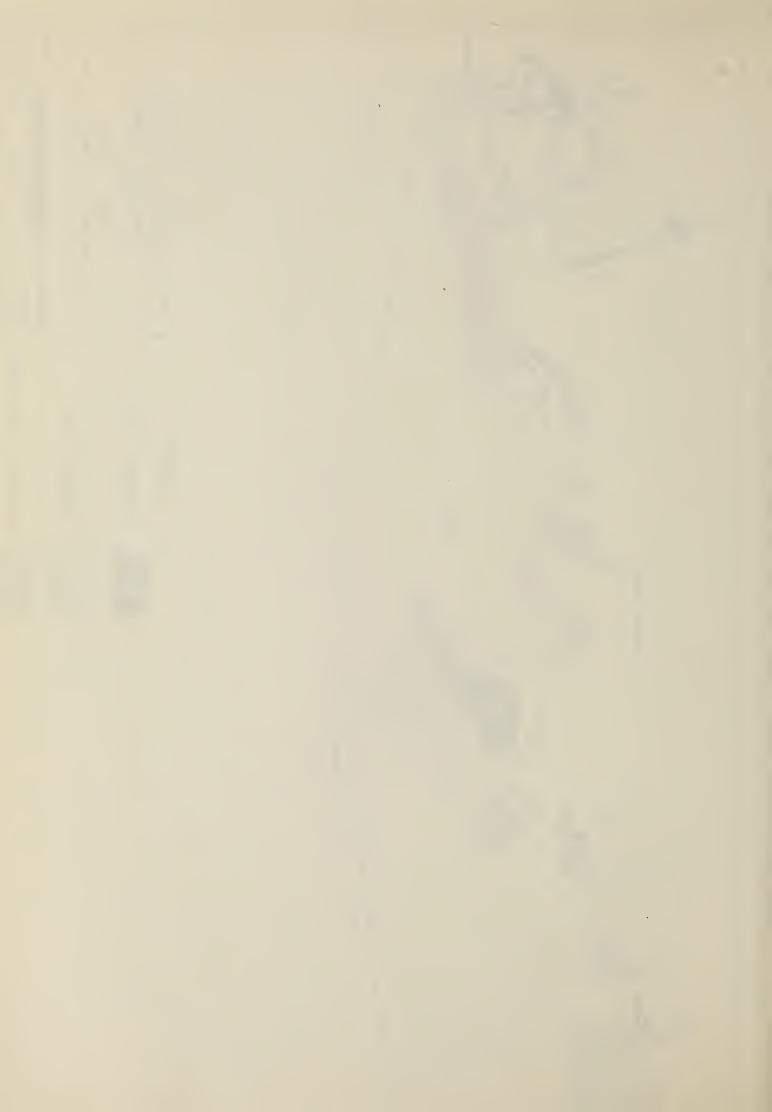


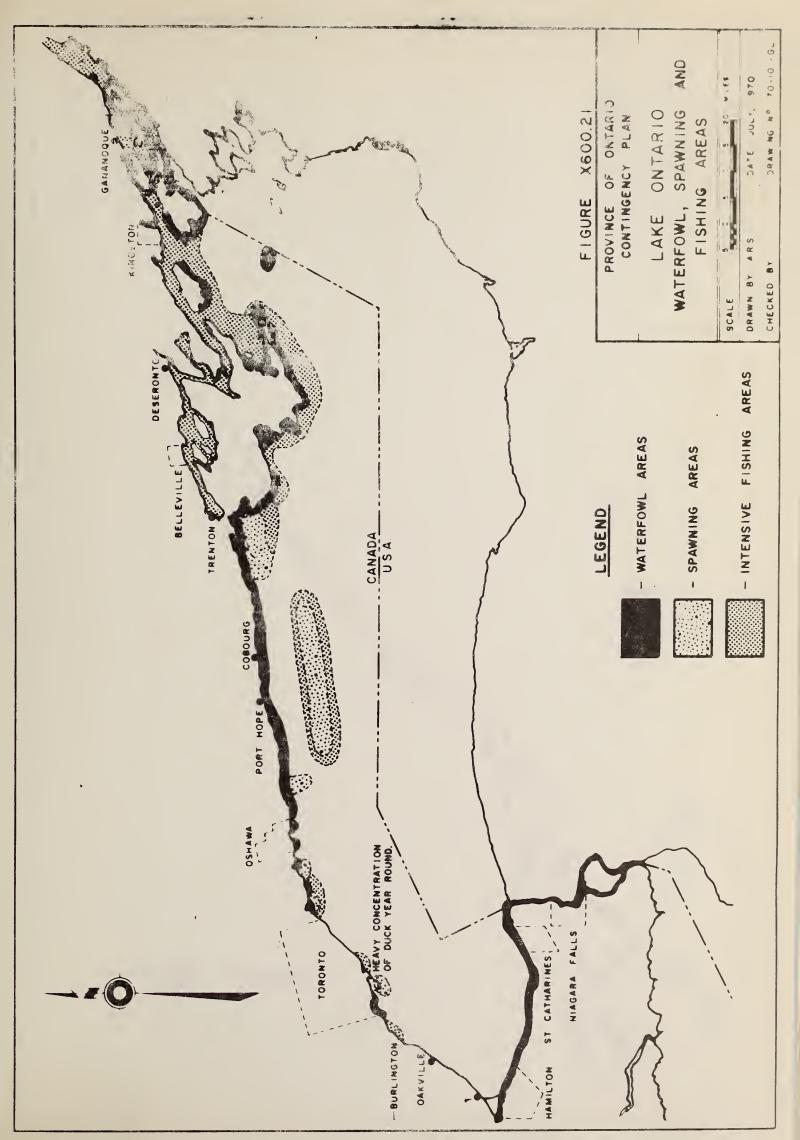


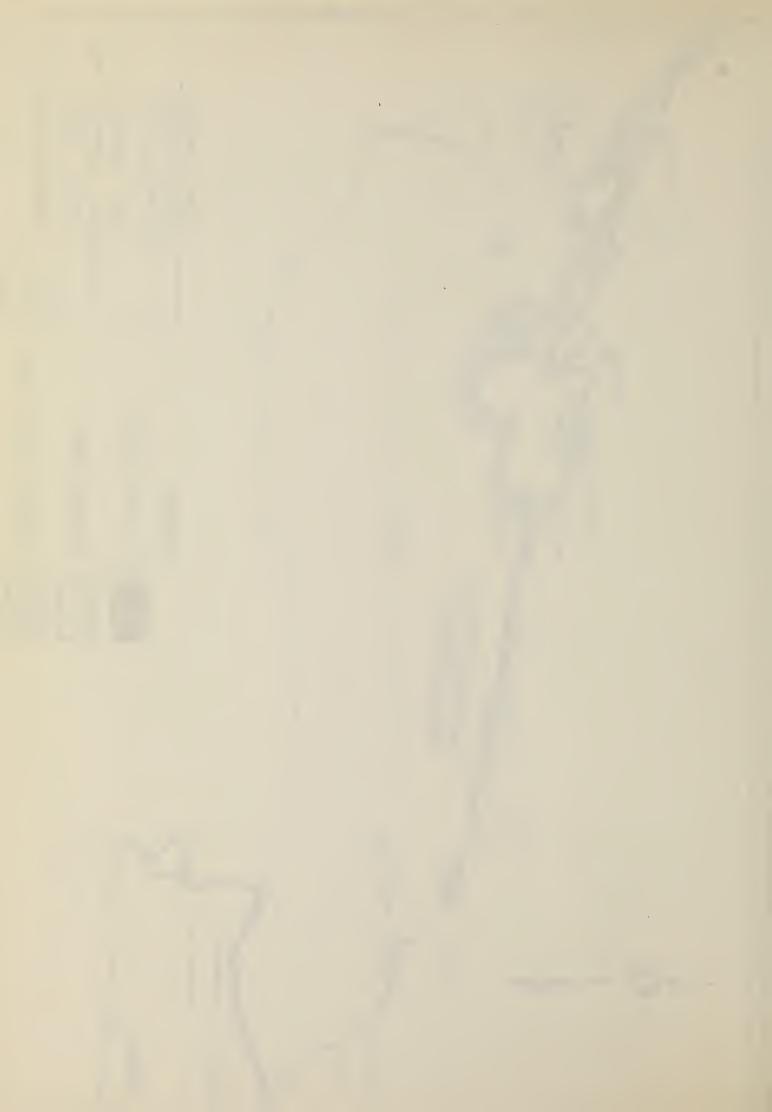


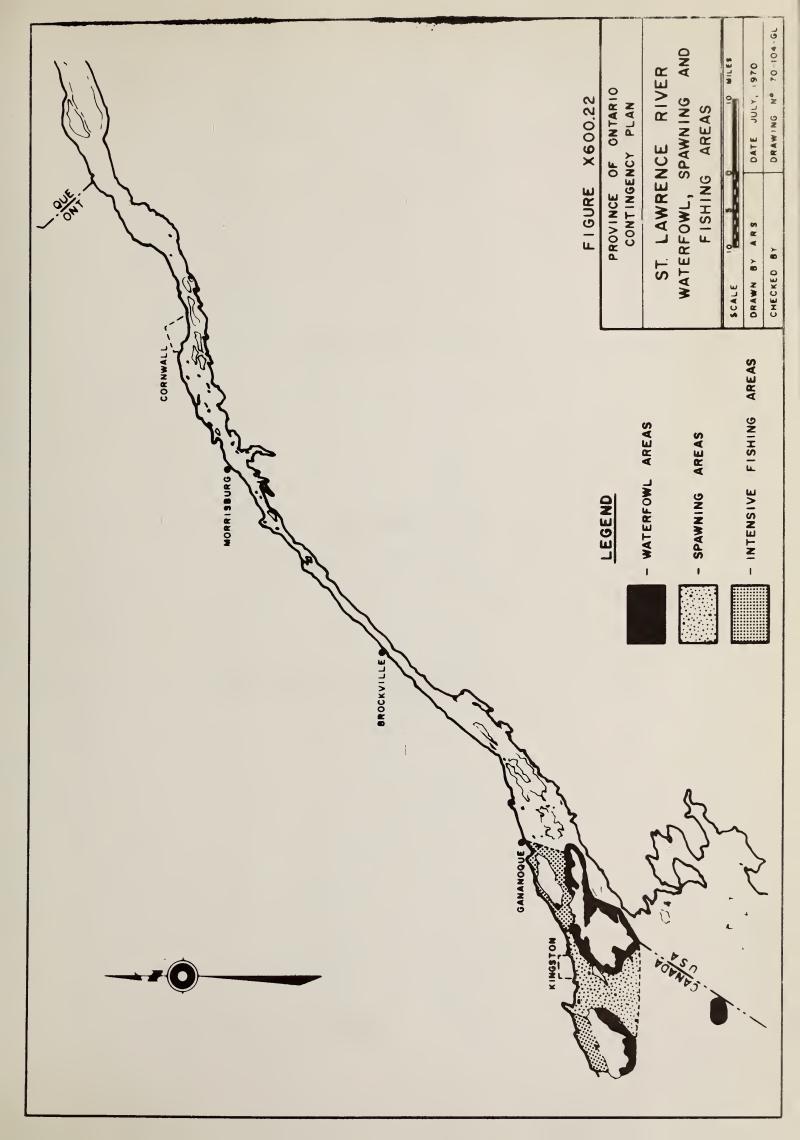














APPENDIX X700

ONTARIO OPERATIONS CENTRE INVENTORY OF EQUIPMENT

for

CONTAINMENT AND CLEAN-UP
OF OIL SPILLS



BOOMS

1. TORONTO

- A. Toronto Harbour Commission
 Four oil slick bars, 500-500-300-200 ft. lengths
 6" floats and 8" fin stored in metal containers
 Contact Mr B. Guest
 Office: 416-362-7011
 Home: 416-222-7241
- B. Canadian National Railway
 One oil slick bar 100 ft. length
 4" floats and 6" fin
- C. Western Lake Ontario Refineries
 Four TT booms 164 ft. length 1' freeboard 2' skirt
 Shift supervisor Shell Canada Ltd. 416-923-2481
- D. Trans-Northern Pipeline Co. 400 ft. flexyboom 12" freeboard 24" skirt mounted on trailer Contact: Mr L. Leadbeater, Office 416-924-3353, Home 416-244-2863 Mr W. T. Currie, Office 416-689-6641, Home 416-648-2960 Mr D. A. B. MacRae, Office 416-689-6651, Home 416-689-6290

2. HAMILTON

A. Hamilton Harbour Commission
Three oil slick bars, 500-250-250 ft. lengths
6" floats and 8" fin, stored in plywood boxes
Hamilton Harbour Police - 24 hr. - 416-529-3423.

3. NANTICOKE

A. Place, Gas & Oil Ltd. 100' oil slick bar. Phone: 519-587-2523.

4. SARNIA

- A. Imperial Oil Enterprises Ltd.
 Shift Superintendent 519-337-8221
 One 164' TT boom 24" skirt and 12" freeboard.
 One oil slick bar 100'.
- B. Shell Canada Ltd.
 Shift Superintendent 519-862-1491
 One oil slick bar 130'.



5. OTHER

- A. Industrial Plastics Canada Ltd.
 Fort Erie, 416-871-0412.
 Slick bar oil boom and oil recovery systems
- B. Flexy Oil Boom.
 Smith-Anderson Co. Ltd.
 Montreal. Tel: 514-842-5211.
 Telex: 05-25365
 TWX: 610-421-3213



CHEMICALS

1. TORONTO

A. Esso Chemicals stockpile Correxit Contact 416-638-1010, 24-hour.

2. ERIEAU

A. Consolidated West Petroleum Ltd.

Mr M. Schoger - Office - 519-689-4203

- Res. - 519-689-4480

Tug "C. Westpete"

Oil dispersant system: 20 gals. correxit tank

3. LAKE ERIE OPERATORS

A. All drilling platforms are equipped with oil dispersant systems with hoses and nozzles to handle minor slicks.

4. SARNIA

A. Imperial Oil Enterprises Ltd., Phone 519-337-8221
45 gal. drums Correxit 7664



SORBANTS, STRAW, HAY, SAWDUST, ETC.

1. TORONTO

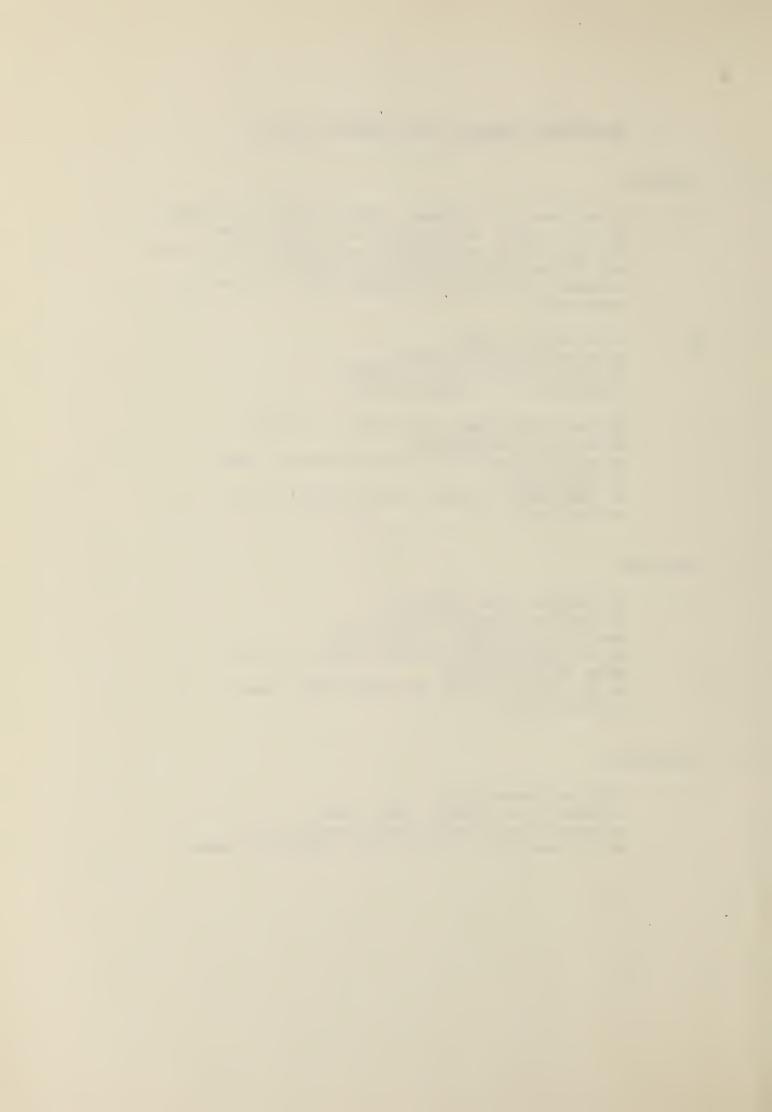
- A. Department of Highways (Maintenance Engineer, Mr E. J. Orr, Office 416-365-3665, home 416-249-1147) can advise on location of straw and Straw Mulch Blowers in Ontario, also contact for private stockpiles of straw and peat moss.
- B. Glen Ogilvie Ltd.
 Stockpile of PEAT MOSS
 Toronto Office 416-231-0589
 Caledonia " 416-765-4531
- C. Reeves Hardifoam, Etobicoke, Ontario.
 Stock of POLYURETHANE
 Mr Ed Duliban Office,416-259-8451, home
 416-621-5542
 Mr Tom Horn, Office 416-259-8451, home
 416-637-8630

HAMILTON

A. Hydroflex Hose Company
21 Sanford Avenue North
Stock of EKOPERL, 2-300 bags
Mr D. Whitefield, Office 416-528-1448,
home 416-528-7336
Mr M. Gold, Office 416-528-1448, home
416-MA8-8140

3 WOODVILLE

A. Jack Montague Ltd.
Stockpile of STRAW, PEAT MOSS
mulchers and trucks for transporation
Mr J. Montague, Office 705-439-2913, home



SKIMMERS AND VACUUM TRUCKS

1. TORONTO

A. Dominion Welding Co. Ltd., Slick Licker (Oleovator) 11ft. belt 34" wide transport by truck or airlift Mr D. Smith, Office 416-889-4861, home 416-889-7002

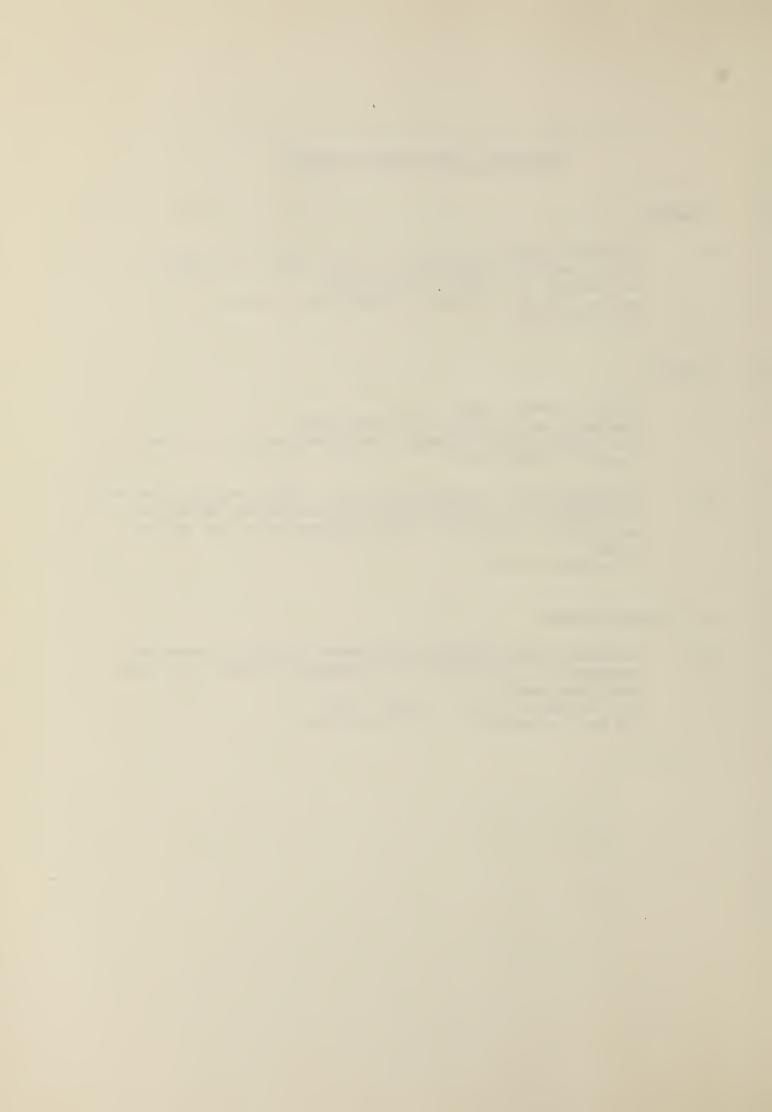
2. SARNIA

- A. Shell Canada Ltd.
 Contact Mr T. Barry 419-862-1491
 One floatation skimmer, require pump or vacuum truck to operate
- B. Imperial Oil Enterprises Ltd., shift superintendent 519-337-8221, 2 floating type skimmers equipped with 50 ft. hose and with electric or gas driven pump.

 1 vacuum truck.

3. ST. ANDREWS WEST

A. Floating type skimmer and centrifugal oil-water separation complete with generator requiring boat and man power.
Oil Sweeper Corp. of Can. Ltd.
24 hr. telephone. 613-933-4015.



MISCELLANEOUS

1. TORONTO

A. Ontario Water Resources Commission
Mr S. E. Salbach, Program Engineer
Great Lakes Surveys Program. 365-6954

MONITOR I

19' Neptune Cruiser will be operating in St. Lawrence, Niagara and St. Marys rivers. Is equipped with trailer. Maximum speed 25 knots. Cruising speed 18 knots.

MONITOR II

28' Georgian steel hull cruiser.
Maximum speed 25 knots, cruises at 20 knots.
Will operate in Detroit and St. Clair rivers.

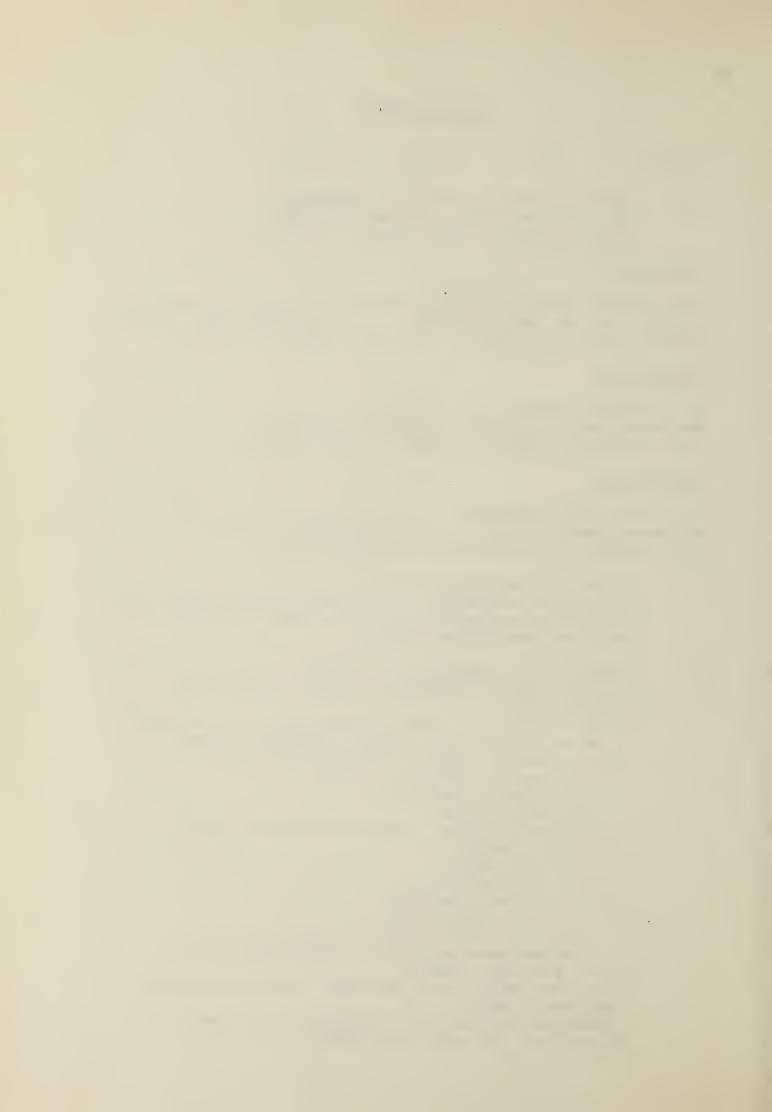
MONITOR III

- 62' steel hull cruiser.
 Maximum speed 12 knots, cruising speed 8 knots.
 Will operate in Lake Ontario and Lake Erie.
- B. Ontario Provincial Police
 Equipment available to provide initial communications, arrangements should be made through
 Ontario Operations Center.
- C. Western Lake Ontario Refineries Contact Shift Supervisor, Shell Canada Ltd., 416-923-2481.
 - 26 ft. launch jointly leased by Gulf and Shell on stand-by basis at Metro Marine, Bronte.
 - A trailer equipped with the following:
 - 1 length (164ft.) TT boom
 - 2 drums dispersant
 - 6 bales straw
 - 25 spill bags (ureatormaldehyde foam)
 - 4 hip waders
 - 2 life belts
 - 4 life jackets
 - 1 knapsack sprayer
 - 200 ft. nylon rope
 - 50 ft. aluminum mesh fencing.

Miscellaneous tools, pitch forks, etc.

A 12' aluminum rowboat

- 3 two-way radio sets are kept on charge in the Instrument shop.
- l Eductor for use with firehose and drums of dispersant are also available.



2. BURLINGTON

A. CCIW, Dr LeFeuvre 416-632-1940

For use of vessel refer to listing on size,
power and location at Ontario Operations Center.

LAKE ERIE

3.

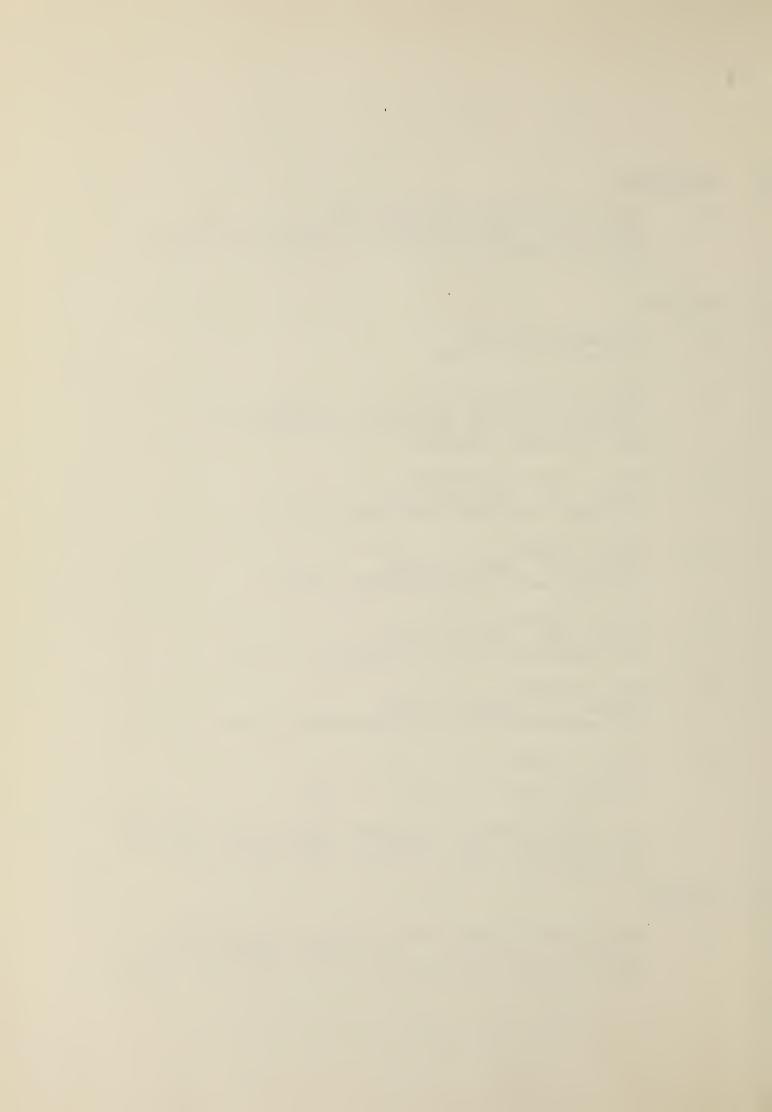
- A. Consumers' Gas Co. Contact 416-443-5000
- i Tug "C. Westpete"
 Stationed Erieau, draft 6'1", speed 9 knots
 sleeping quarters and galley equipped with
 oil dispersant system.
- ii Tug "Long Point Gas"
 draft 5'6", speed 12 mph
 equipped with oil dispersant system.

- v Tug "Petco"
 draft 3'2", speed ll mph
 not equipped with oil dispersant system.
- vi Scow "Ungas III"
 draft 1'5"
 maximum allowable load: 60 tons.

The above listed tugs frequently are stationed at Port Stanley, Port Colborne, Port Burwell, Erieau depending on location of drilling operations.

4. AYLMER

A. Department of Lands and Forests 519-773-9241
Mr W. B. M. Clarke. 10 vessels ranging 16 to
45 ft. length equipped with 50 to 150 h.p. motors.



5. SARNIA

A. Imperial Oil Enterprises Ltd.
25 ft. boat equipped with two 500 gpm
Chrysler Industrial water pumps and two
Fire Monitors for correxit application.



APPENDIX X800

NINTH U.S. COAST GUARD DISTRICT

INVENTORY EQUIPMENT

<u>for</u>

CONTAINMENT AND CLEAN-UP

OF OIL SPILLS



BOOMS

X800

1. COTP OSWEGO ZONE

A. St. Lawrence Seaway Development Corporation, Messena, New York 1000 feet floating plastic oil boom (slickbar)

2. COTP BUFFALO ZONE

- A. Department of Public Works, Buffalo, New York
 One 370' plastic oil boom 6" diameter float 18" skirt (slickbar)
- B. Republic Steel Corporation, Buffalo, New York One 200' plastic oil boom, 6" diameter float 18" skirt (slickbar)
- C. Erie County Public Works Department, Buffalo, New York One 350' plastic oil boom, 6" diameter float 6" skirt (slickbar)
- D. Bethlehem Steel Corporation, Buffalo, New York
 One 150' plastic oil boom, 6" diameter float 6" skirt (slickbar)
- E. Port Authority, Rochester, New York
 One 1000' plastic oil boom, 4" diameter float 6" skirt (slickbar)
- F. Mobile Oil Company, Buffalo, New York
 390' of plastic oil boom (slickbar) 6" float, 6" skirt
- G. Ashland Oil Co., Tonawanda, New York
 100' of plastic oil boom (slickbar) 6" float, 6" skirt

3. COTP CLEVELAND ZONE

A. Harbor Master/COTP CLEVELAND, Tel: 522-4409/694-3256 1000' (slickbar)

4. COTP DETROIT ZONE

A. Mobile Oil Company, West Allen Road, Trenton, Michigan 100' section slickbar floating plastic oil 10' fin, standard weight Mobil has ordered 500' of same type boom



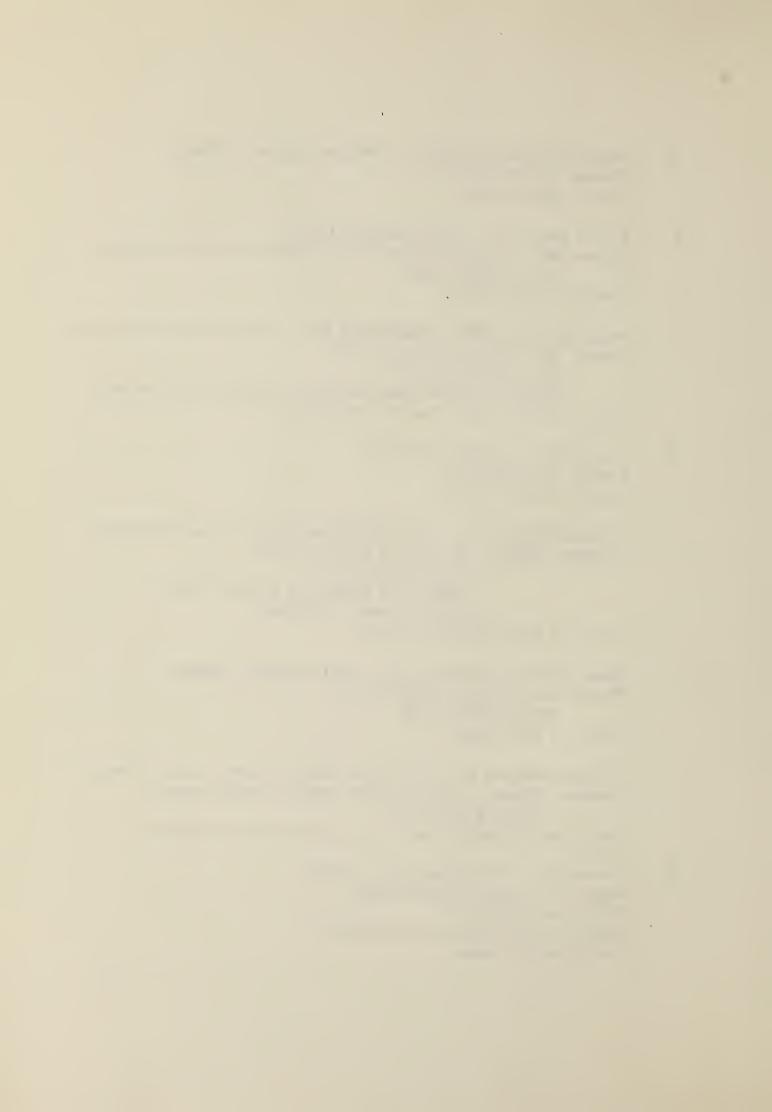
- 4. B. Standard Oil Company, Ft. of Wilder Road, P.O. Box 38, Bay City, Michigan.
 200' section slickbar 6" fin, standard weight.
 - C. Dow Chemical Co., 4868 Wilder Road, Bay City, Michigan. 2500' slickbar in 100' section.
 For information, Dow Chemical, Midland, Michigan has a complete fire department with capabilities of oil removal under Chief Earl Forten. Dow also produces in Midland all components that are used in making standard slickbars.
 - D. Ford Motor Company, 3001 Miller Road, Dearborn, Michigan. 600' English Warne type booms in 100' sections maintained in place at Ford River Rouge Plant. One Standard Oil make skimmer maintained at Ford River Rouge Plant.
 - E. Marine Pollution Control Corp., 214 Randolph St., Detroit, Mich. 200' section slick bar 6" fin, standard weight.
 - F. Ford Motor Co., 3001 Miller Road, Dearborn, Mich. 100' section slickbar floating plastic oil boom 4" float, 6" fin weighted for 2 1/2 knot current.

5. COTP CHICAGO ZONE

- A. American Oil Co., Riley Road and Indiana Harbour Ship Canal, East Chicago, Ind. Phone: Mr. Windhauser: 219-659-2700. Ext. 217 or 216. Day: FTS 219-932-5500. Nights and Weekends: 219-397-4039 (if no answer, call 219-659-2700 Ext 343). One 6" by 250'; two 6" by 500' booms.
- B. Bethlehem Steel Corp., Burns Harbor, Indiana Phone: 219-652-2120.
 FTS 219-886-2411
 One 8" by 150' boom.
- C. Cities Service, Columbus Drive, East Chicago, Indiana
 Phone: Mr. Stover 219-397-6560 Ext 342
 Mr. Knight 219-397-6560 Ext 253
 FTS 219-932-5500
 Nights and Weekends: 219-397-6560 (Ask for foreman)
 One 4" by 350' boom.



- D. Globe Oil and Refining Co., Willow Springs, Illinois Phone: 312-839-5220 One 6" by 30' boom.
- E. Inland Steel Co., East Chicago, Illinois
 Phone: Mr. J. Kapitan (Fire Chief): 219-397-2300 Ext. 2035
 FTS 219-932-5500
 Two 6" by 200' booms
- F. Mobil Oil Co., 3821 Indianapolis Blvd., East Chicago, Indiana Phone: Mr. Murray: 219-397-1950
 FTS: 219-932-5500
 Nights and Weekends 219-397-1950 (Ask for foreman)
 One 4" x 250' boom, One 4" x 350' boom
- G. Pure Oil Co., Lemont, Illinois Phone: 312-257-2201 Four 6" x 100' booms.
- I. Shell Oil Co., Columbus Dr., East Chicago, Indiana Phone: Mr. Austin 219-845-4502
 FTS 219-932-5500
 One 4" x 250' boom.
- J. Sinclair Refining Co., 3500 Indianapolis Blvd., East Chicago, Indiana. Phone: 219-397-0924 (ask for shift foreman) FTS 219-932-5500
 Two 4" x 350' booms one is semi permanently installed.
- K. Texaco Co., 3600 Canal St., Indiana Phone: Mr. Eaton 219-397-0908 FTS 219-932-5500 Nights and Weekends 219-838-8881 One 4" x 400' boom.



- L. Texaco Inc., Lockport, Illinois Phone: 815-838-0770 One 8" x 100' boom.
- M. Humble Oil and Refining Co., 3301 South California Ave., Chicago, Ill.
 Phone: Mr. Game, Supt. (312) 523-8100
 Night Phone: (312) 247-2615
 One 4" by 100' boom 175 lbs.
- N. Sinclair Oil Terminal, 4100 S. Laramie, P.O. Box 48, Cicero, Illinois. Phone: Mr. L. E. Lacock Sutp. 312-247-3378 Night Phone: 312-247-3378 or 312-652-2170 (Two (2) 4" by 200' booms 750 lbs.
- O. Marson Corp., 327 S. LaSalle St., Chicago, Ill. Phone: John D. Harper 312-741-9047 (24 hrs)

 Note: Equipment normally for hire
 8" by 12' (1200') booms 1500 lbs; 6" by 8' (1000') booms, 1100 lbs.

6. COTP MILWAUKEE ZONE

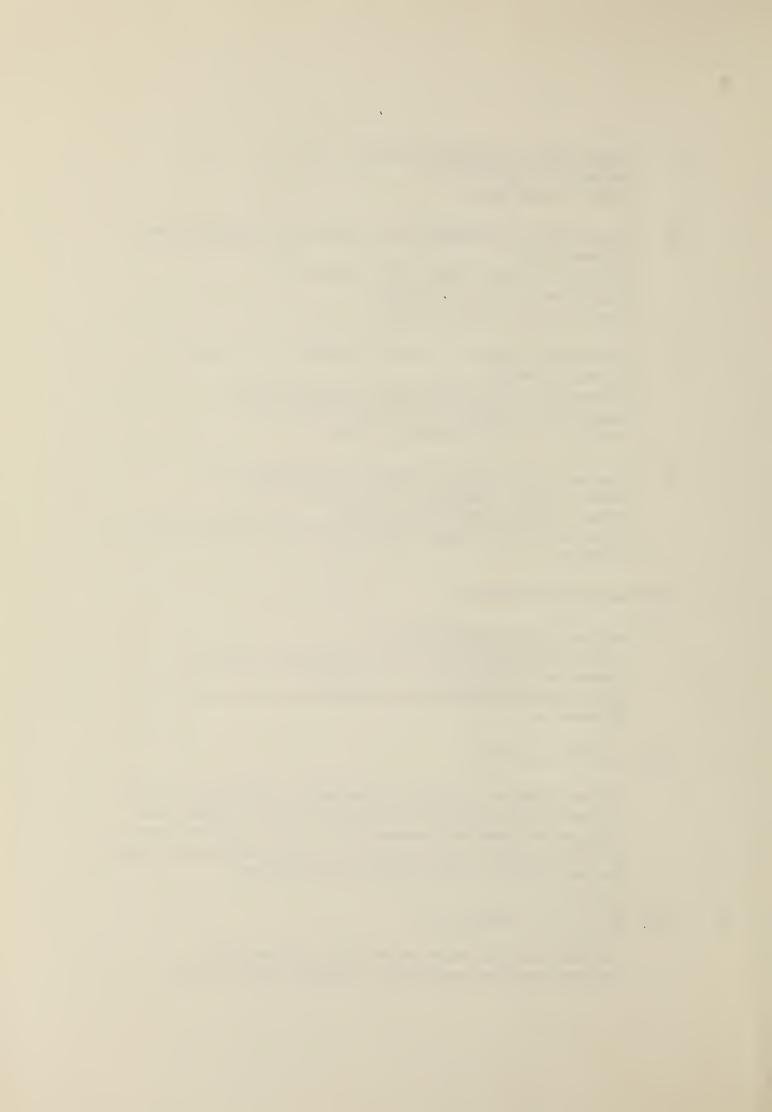
A. Milwaukee Fire Department
750' slickbar boom with line throwing gun and truck.
Phone: 414-347-2323
Note: Boom not generally available for use outside of Milwaukee.

7. COTP LUDINGTON ZONE

A. 500' of Slickbar oil boom at Muskegon, Mich. and 500' of the same type of boom at Ferrysburg, Mich. These were produced by local oil terminals, the Grand Trunk Western Railroad, and the city of Muskegon, and are primarily under the jurisdiction of Muskegon Fire Department.

8. COTP SAULT STE. MARIE ZONE

A. Standard Oil Co. depot at Sault Ste. Marie Mich. One four-hundred foot (400'), Slickbar type oil boom.



9. COTP DULUTH ZONE

- A. Murphy Oil Company
 Superior Refinery Fuel Terminal
 Superior, Wisconsin
 Phone: 218-727-6862 (24-hour phone) Contact Walter Buck
 Common carrier; military vehicle
 130' slick bar oil boom with 4" float and 8" fin.
- B. Great Northern Refinery P.O. Box 3596 Pine Bend, Minnesota. Phone: 612-222-4721 (24 hour phone) Contact Jud Hester Common carrier, 24-hour service One slick bar oil boom with 6" float and 6" fin-5 lengths totaling 1,000 feet. Portable surface pump Weight 300 lb. (approximate) 70-foot suction hose, discharge hose with flange connection.
- C. Lakehead Pipeline Co., Pier, Superior, Wis.
 Phone: 398-6547 (Superior) Contact Charles Gilbert,
 Common Carrier; Military Vehicle
 100' plastic oil boom.

10. COTP TOLEDO ZONE

- A. Gulf Oil Co., 2935 Front St., Toledo, Ohio Phone: 419-729-3871.
 400' 4 x 6 slickbar, chain weighted, 74 lbs. per 100'.
- B. Standard Oil Co. Foot of Millard St. Toledo, Ohio Phone: 419-248-1461 300' 4 x 6 slickbar-chain weighted, 74 lbs per 100'.
- C. Buckeye Pipeline Co. Lima, Ohio Phone: 419-223-4015 200' triple weighted slickbar, 120 lbs per 100'



CHEMICALS

1. OSWEGO

- A. St. Lawrence Seaway Dev. Corp.
 Massena, New York
 Phone: 315-764-0271
 500 Gal. JANSOLV-60
- B. Massena Fire Dept.

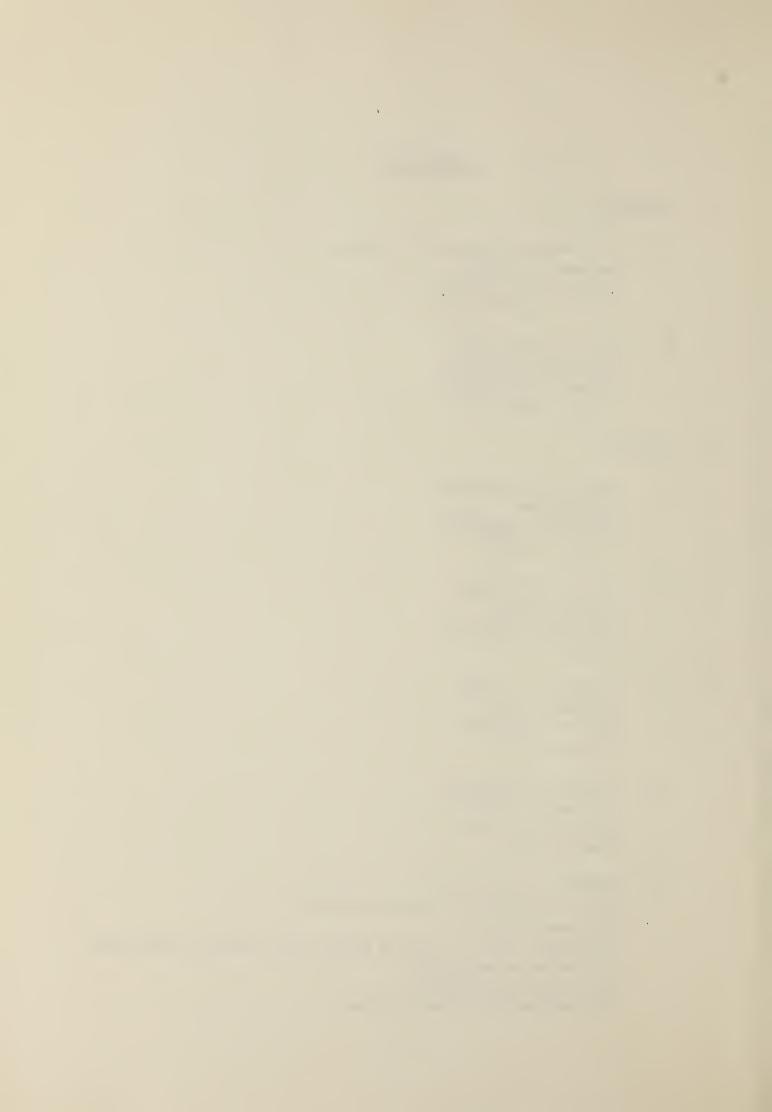
 Massena, New York

 Phone: 315-769-2464

 10 Gal. "Foilzoil"

2. BUFFALO

- A. American Oil Company
 McKee Road
 Rochester, New York
 15 Gals. SLIX
- B. Hess Oil Company
 22 Cairn Street
 Rochester, New York
 25 Gals. SLIX
- C. Allied Oil Company Cranberry Street Erie, Pennsylvania 55 Gals. SLIX
- D. United Oil Company Cranberry Street, Erie, Pennsylvania 5 Gals. SLIX
- E. Buffalo Fire Dept. Phone: 716-854-1674 for the following Dry Foam Powder Two motor units - 1 -1000 # unit and 500 gallons liquid foam at Greater Buffalo Airport City of Buffalo Fire Boat 630 gallons high expansion foam



- F. Buffalo CG Station Phone: 716-842-2191 21-5 gallon cans foam
- G. USCGC BUCKTHORN
 Phone: 716-842-2045
 13-5 gallon cans foam
- H. USCGC OJIBWA
 Phone: 716-842-2046
 11-5 gallon cans foam

3. CLEVELAND

- A. Magnus Chemical
 3199 W. 65th St.
 Cleveland, Ohio 44102
 Phone: 216-631-7397
 216-268-4040
 Various chemicals and emulsifiers
- B. Magnus Chemical
 5100 W. 164 st. St.
 Cleveland, Ohio 44142
 216-267-4506
 216-243-1262
 Oil Spill Disperser and Experts
- C. Ekoerl
 616 St. Clair Ave. N.E.
 Cleveland, Ohio 44114
 216-621-3210
 Oil absorbent large quantity
- D. Alken Murray Corp.
 5156 Thornbury Blvd.
 Cleveland, Ohio 44124
 216-771-8183
 Liquid Dispersant



E. Yosemite Chemical Co. Akron, Ohio 216-762-2616 Spill - Away

4. DETROIT

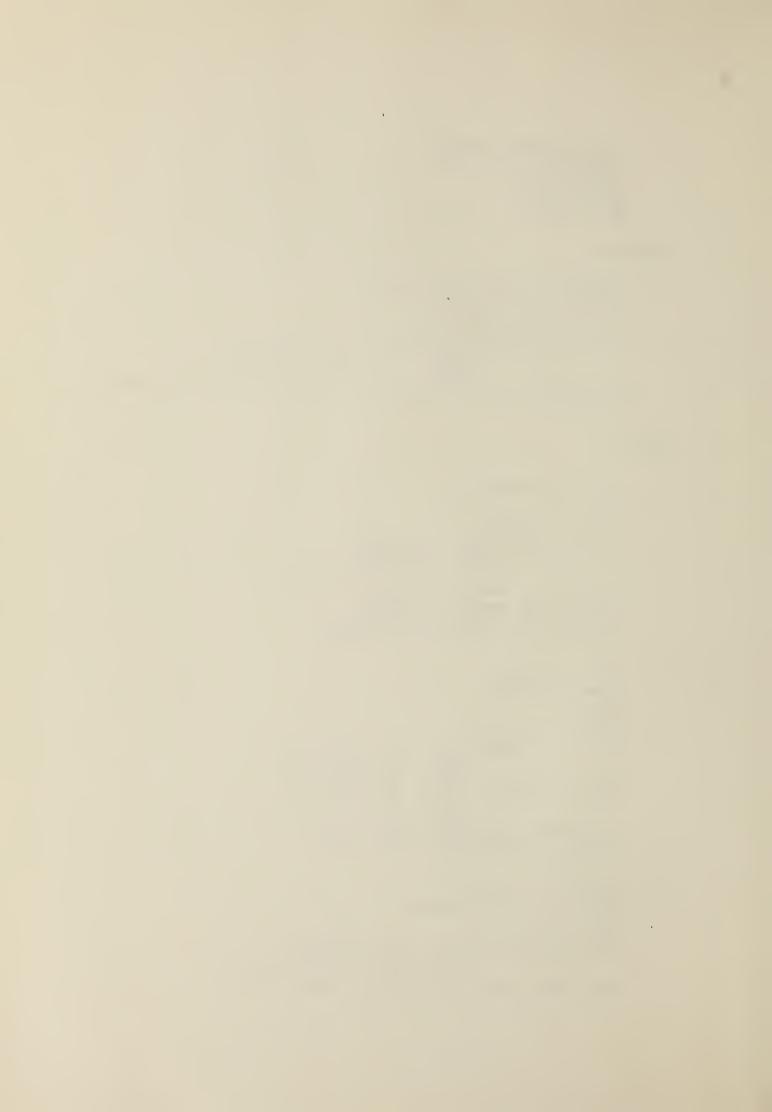
A. Marine Pollution Control Corp.
214 Randolph Street
Detroit, Michigan 48226
Mr. David Usher Home Phone: 313-548-1234
Office " 313-931-1035
400 Gallons Oil disperser as well as other pollution control equipment.

5. CHICAGO

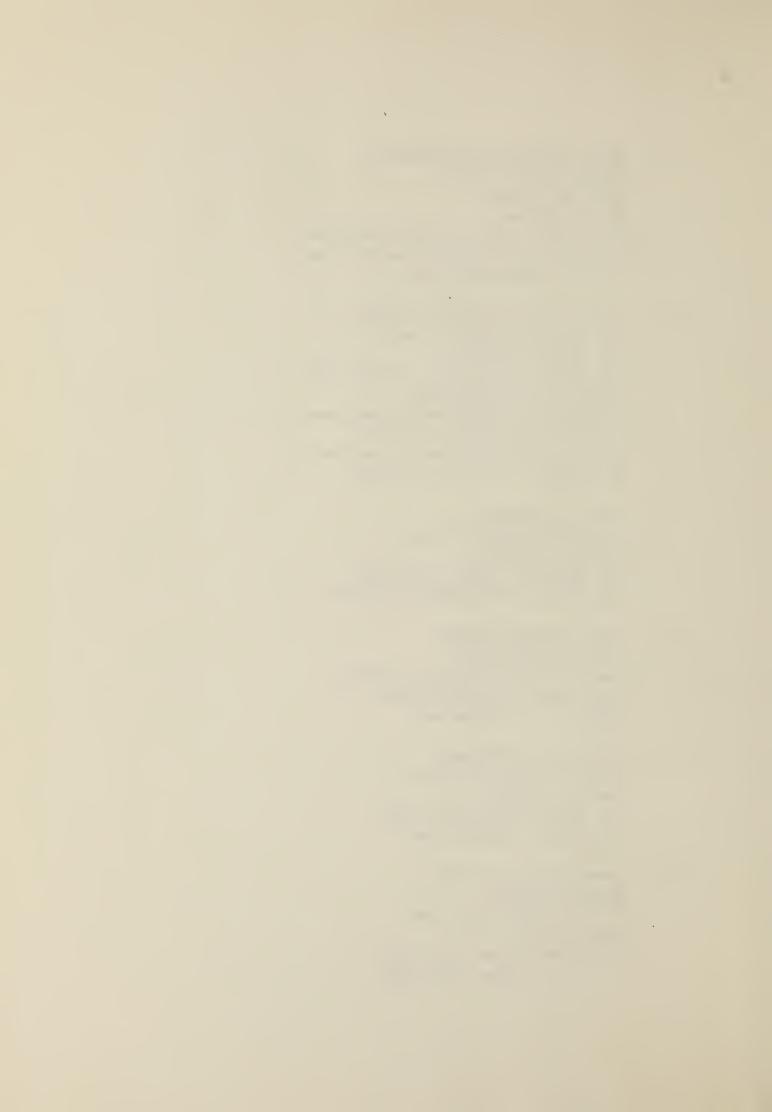
A. Pure Oil Company
Mile 297.5
Lemont, Illinois
Mr. Gerharz Phone: 257-2201
Home: 257-2171
90,000 lbs. foam powder in 50 lb. pails
400 lbs, dry chemical powder.
105 Gal. 3% mechanical liquid foam

B. Texas Company
West 2nd Street
Box 200
Lockport, Illinois
Mr. J. R. Cutler Phone: 815-838-0770
Home 815-838-0744
Mr. J.C. Jarratt Phone: 815-838-0770
Home: 815-838-1242
38,000 lbs. dry foam powder in 50 lb. pails
645 lbs. 3% mechanical liquid foam

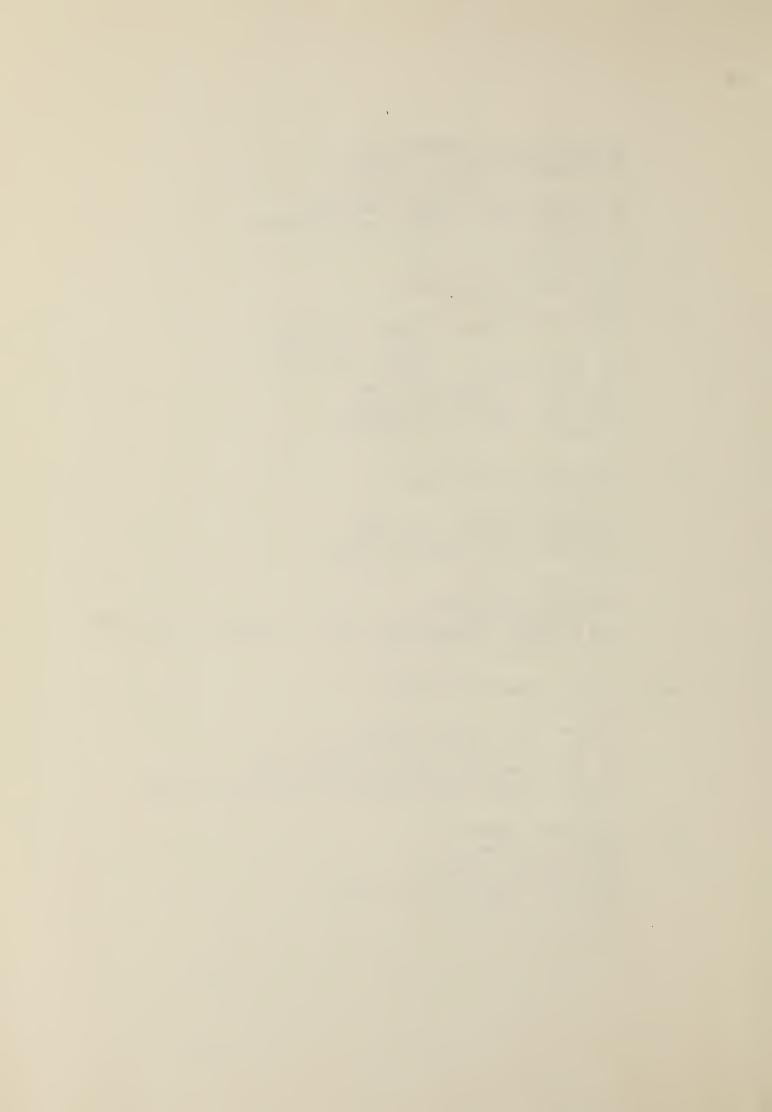
C. Smith Oil Company
P.O. Box 5 West Market
Peru, Illinois
Mr. F. Tielman Phone: 815-223-3035
Spring Valley 3-0314 (nights)
100 5 Gal. Pails 6% mechanical foam



- D. Getz Fire Equipment Company
 Phone: 309-673-0761
 1615 West Adams
 Peoria, Illinois
 60 (5) Gal. cans 3% mechanical foam
 50 Gals. Kiddle High Expansion Foam
 5 Gals. Mine Safety foam.
- E. Clark Oil and Refining Company
 131 Street and Kedzie Avenue
 Blue Island, Illinois
 Mr. Schutz Phone: 285-5000 Ext. 202
 4700 lbs. of dry chemical
 600 Gals. 3% liquid mechanical foam in 5 gal. cans
 150 Gals. 6% mechanical foam
 3850 lbs. 3% liquid mechanical foam
 27,350 lbs. of 2+1 foam powder
- F. Pure Oil Company
 4801 South Harlem Avenue
 Chicago, Illinois
 Mr. Johnson: Phone: 484-7800
 330 Gals. of 3% mechanical foam
- G. Harlem Avenue Bridge
 Lake River Terminal
 Harlem Avenue, Bridge and Canal
 Mr. Krestan Phone: 242-2300
 200 Gals. 3% liquid foam
- H. Standard Oil Company 4811 South Harlem Avenue Berwyn, Illinois Mr. Fabray: Phone: 242-3480 125 Gals. 3% liquid foam.
- I. General American Tank
 Storage Terminal
 67 Street and Archer Road
 Argo, Illinois
 Mr. Ferry, Phone: 581-2340
 Home 424-6683



- I. General American Tank (cont'd) Mr. MacDonals Phone: 581-2340 Home: 458-3281 70,100 lbs. (50 lb. pails) foam powder 22,440 lbs. (50 lb. pails) chemical powder
- J. Charles R. Teas Co. Inc.
 13825 South Indiana Avenue,
 Chicago, Illinois
 Mr. W. O. O'Conner, Phone: 849-8840
 Home: 233-5731
 Mr. Teas Phone: Home: 849-2273
 3,000 Gal. 3% mechanical foam
 3,000 lbs. Purple K dry chemical
 20,000 lbs. Plus 50 dry chemical
- K. Walter Kidde and Co. Inc. 1314 West Randolph Street, Chicago, Illinois Mr. Vonckx, Phone: 252-1910 1,000 Gals. High Expansion Foam.
- L. Mobil Oil Company 3821 Indianapolis Blvd., East Chicago, Indiana Phone: Mr. C. Smoljan 219-397-1950 8-40 Gal. Liquid Foam Carts
- M. Sunshine Chemical Company
 P.O. Box E.
 Highland Park, Illinois 60035
 Mr. Bill Katz, Phone: 312-433-1145
 Mr. Steve Kausman, Phone: 203-232-9227
 Various chemical and equipment for combating oil spills
- N. The Texas Company
 3600 Canal Street
 East Chicago, Illinois
 Mr. Eaton, Phone: 219-397-0908
 7,500 Gals. Foamite



- O. Whiting Refinery Amer. Oil Co.
 2400 New York Avenue
 c/o Fire Department
 Whiting, Indiana
 Mr. Kaminsky, Phone: 219-659-2700 Ext 243
 (1) truck with 2,000 lbs. dry chemical powder.
- P. Sinclair Refinery Company
 3500 Indianapolis Blvd.
 East Chicago, Indiana
 Mr. Niemann, Phone: 219-768-2866
 Mr. Carpenter, Phone: 219-398-0924
 One 350 lb. Ansul dry powder 962 lb.
 One 150 lb. Ansul dry powder extinguisher 487 lbs.
- Q. Able Fire and Safety Company
 260 N. Fairfield
 Chicago, Illinois
 Mr. P. K. Nielsen, Phone: 826-5555 (24 hrs)
 1,500 Gals. High Expansion Foam.
 1,600 Gals. Rockwood Protein Foam.
 2,600 lbs. dry chemical powder
 2,600 lbs. Purple K powder
- R. HI-EX Co.
 1733 East 75th Street
 Chicago, Illinois
 Mr. O. J. Kelly, Phone: 363-3877
 Home: 798-5239
 250 Gals. High Expansion Foam.
- S. Humble Oil and Refining Co.
 3301 So. California Ave.
 Chicago, Ill.
 Phone: Mr. Game Supt. (312) 523-8100
 Night Phone: (312) 247-2615
 42 Gals. liquid Corexit with spray gun

6. MILWAUKEE

A. Milwaukee Harbor Commission Milwaukee, Wisconsin, Phone: 414-276-9355 50 Gals. JANSOLV-60



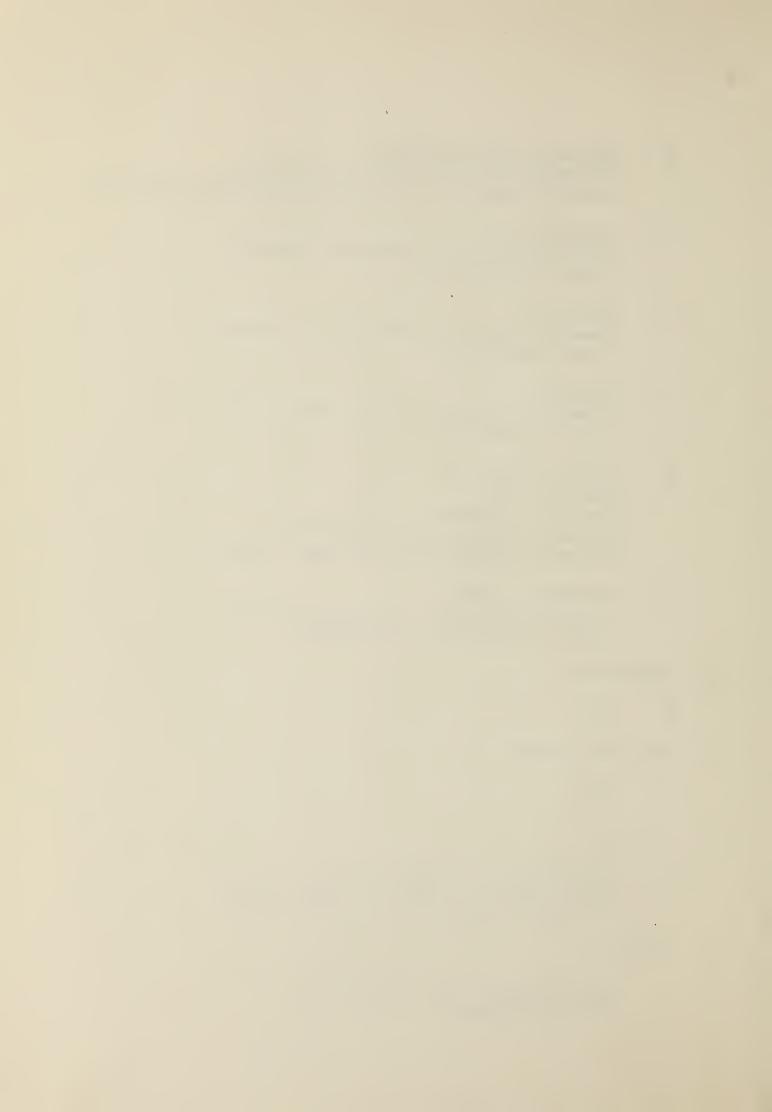
- Milwaukee Fire Department
 Milwaukee, Wisconsin, Phone: 414-276-9355
 850 Gals. JANSOLV-60 Not available outside Milwaukee area.
- C. American Oil Co.
 Milwaukee, Wisconsin, Phone: 414-273-6117
 55 Gals. JANSOLV-60
- D. Shell Oil Co.
 Milwaukee, Wisconsin, Phone: 414-271-8700
 55 Gals. JANSOLV-60
- E. Texaco Inc.
 Milwaukee, Wisconsin, Phone: 414-271-8110
 55 Gals. JANSOLV-60
- F. Illinois Chemical Co.
 South Town Road
 New Berlin, Wisconsin
 Mr. Eugene Sperry, Phone: 414-786-3651
 Distributor for JANSOLV-60, 100 Gals. on hand.
- G. Green Bay Fire Dept.
 Green Bay, Wisconsin, Phone: 414-435-4401
 55 Gals. JANSOLV-60, with dispensor

7. LUDINGTON

- A. None
- 8. SAULT STE. MARIE
 - A. None
- 9. DULUTH
 - A. Duluth Air Force Base Fire Station
 Duluth, Minnesota. Phone: 727-8211 (24 hrs)
 3,000 Gals. of Liquid Foam in (5) Gal. cans

10. TOLEDO

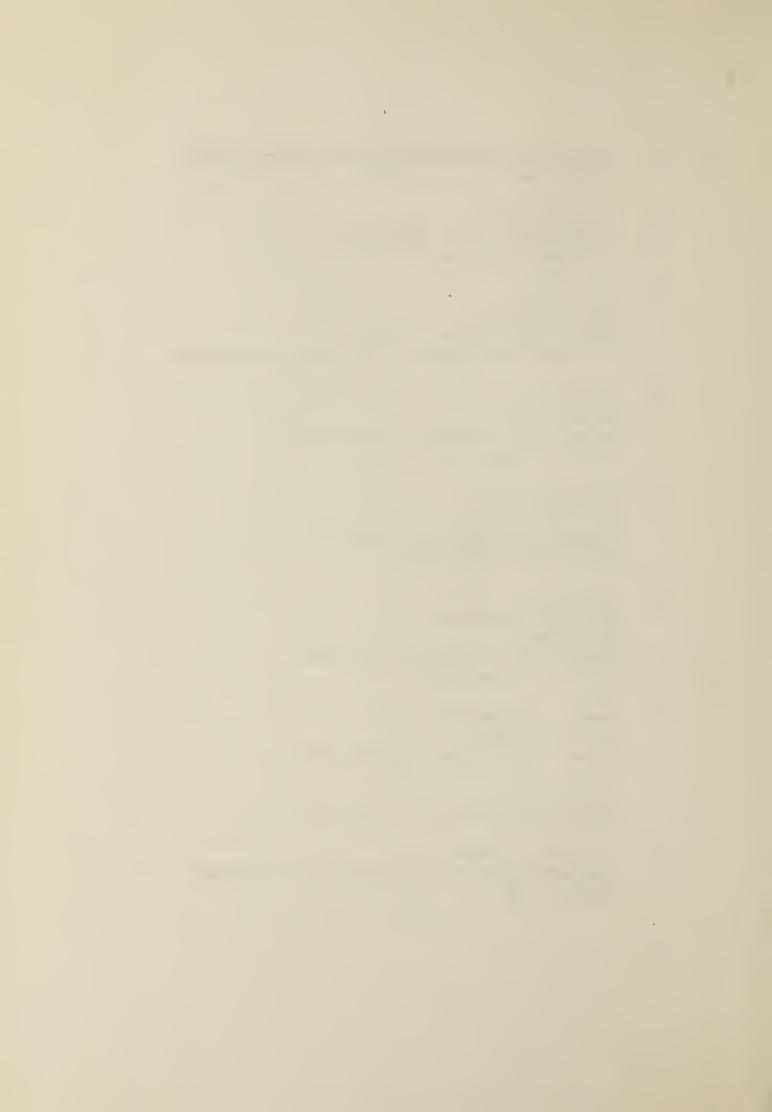
A. USCGC TUPELO Phone: 419-254-6450 12-5 gal. cans foam



- 10. B. Toledo Coast Guard Station, Phone: 419-259-6448 5 Gals. foam
 - C. Toledo Fire Dept.
 Toledo, Ohio, Phone: 419-232-4141
 2-(5) Gal. cans foam.

. .

- D. Gulf Oil Co.
 2935 Fron Street
 Toledo, Ohio, Phone: 419-729-3871
 2-55 Gal. Drum JANSOLV-60 3-55 Gal. Drums SLIX
- E. Standard Oil Co.
 Millard Street
 Toledo, Ohio. Phone: 419-248-1416
 2-55 G 1. Drums SLIX
- F. Ashland Oil Co.
 3147 Jessie St.,
 Toledo, Ohio Phone: 419-726-2867
 (5) 6-55 Gal. Drums SLIX
- G. Sun Oil Co.
 Hocking Valley Dock
 Front Street
 Toledo, Ohio. Phone: 419-691-3561
 (5) 55 Gal. Drums SLIX
- H. American Shipbuilding Co.
 2247 Front Street,
 Toledo, Ohio, Phone: 419-691-2475
- I. Miller Oil Co., Fire Extinguishers: Two 15 lb. CO₂
- J. J. Buckeye Pipeline
 Fire extinguishers: Three-150 lb. DC on wheels;
 Fifteen-15 lb. DC



ABSORBENTS, STRAW, HAY, SAWDUST, ETC.

1. OSWEGO

A. None

2. BUFFALO

A. Bailey Feed Co 1578 Clinton Street Phone: 716-822-6349 Hay and straw \$1.10 per bale 300 to 400 bales on hand at all times

3. CLEVELAND

- A. Broadview Seed and Feed Co. Phone: 749-1221 100 bales straw or hay.
- B. United Farmer Exchange Phone: 235-3172 100 bales straw or hay
- C. Wilson Feed Mill Phone: 216-524-7080 100 bales straw or hay.
- D. Herrman-Mclean Co. Phone: 216-771-1131 150 bales straw or hay

4. DETROIT

- A. Lazoen Hay and Feed Co. 26549 Lawrence Centerline, Mich. 200 bales straw, 200 bales hay
- B Marine Pollution Control Co.
 214 Randolph Street
 Detroit, Mich.
 400 lbs Ecoperl oil absorbent (dry)



5. CHICAGO

A. Northwestern Salt and Feed Co.
1800 N. St. Louis Street
Chicago, Illinois.
Phone: 317-772-7200
Straw - \$35 per ton. (May be delivered within 24 hrs)

6. MILWAUKEE

A. None

7. LUDINGTON

A. None

8. SAULT STE. MARIE

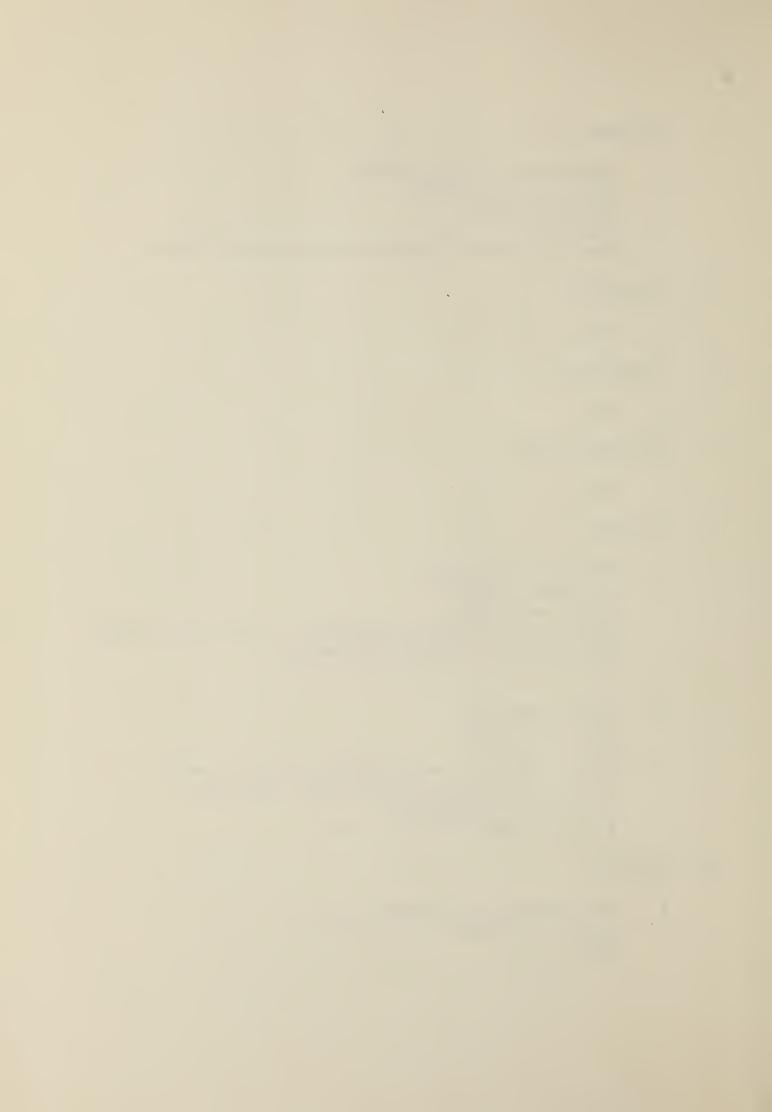
A. None

9. DULUTH

- A. B&B Feed and Grain Co
 2402 West Superior St.
 Duluth, Minnesota.
 Phone: 722-9188 Contact Greg Birch 715-392-2700 (home)
 Hay and Straw, 50 bales @ .65 per bale.
 50 lb bale, size 1 1/2' x 1 1/2 x 3 1/2
- B. Lepake Lumber Co.
 4300 West 2nd St.
 Duluth, Minnesota
 Phone: 628-1011 Bernard Lepake 724-1055 (home)
 @ .75 per bag \$20 truckload (sawdust) (delivered)
 @ .65 per bag (picked up)
 2 ton truckload \$20 (15 cu. yds.)

10. TOLEDO

A. The Andersons Mrs. Tucker Phone: 419-893-6551 or 419-882-3410 Hay



- B. Mr. Richard Jacobs
 Phone: 472-1109
 Sawdust
- C. Creque Bros.
 5050 S. Main
 Toledo, Ohio
 Phone: 419-536-1203
 Hay



SKIMMERS AND VACUUM TRUCKS

1. OSWEGO

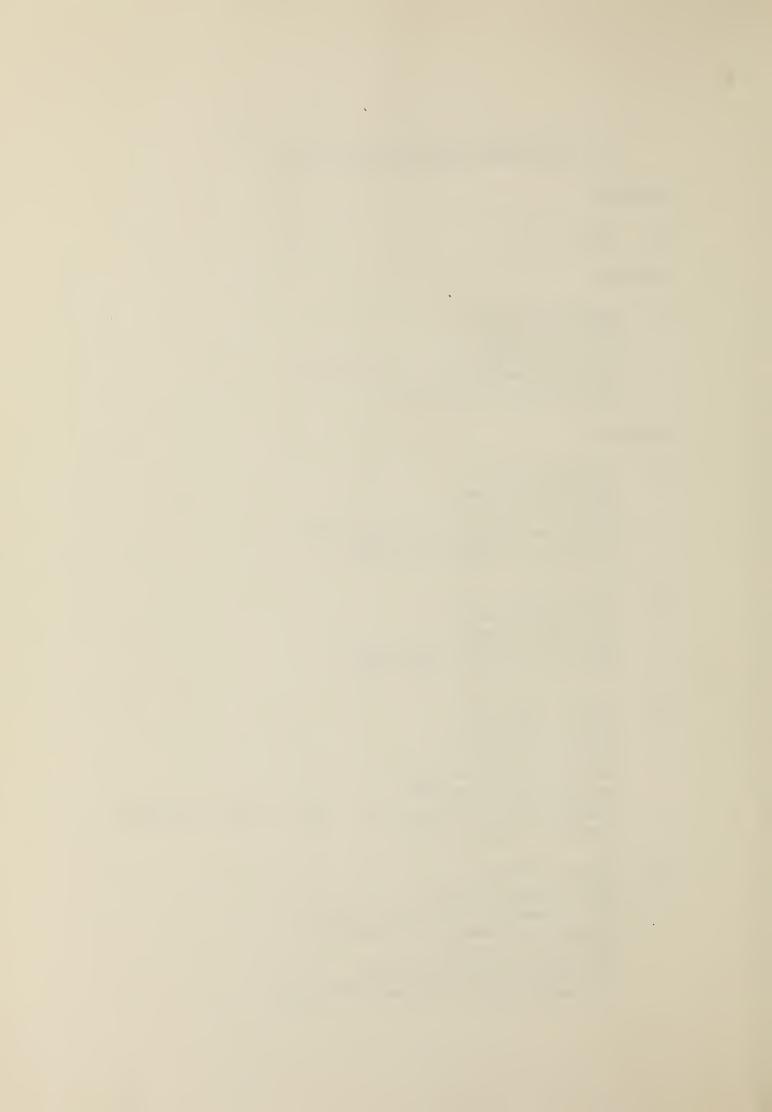
A. None

2. BUFFALO

A. Bethlehem Steel Co.
3535 Lakeshore
Lawawana, New York
One 300 floating type gasoline driven
One 55 GPH conveyer type

3. CHICAGO

- A. American Oil Co.
 2400 New York Ave.
 Whiting Indiana
 Phone: Mr. Kaminsky (219-659-2700)
 One vacuum pickup truck 2 tons.
- B. Clark Oil Co.
 131 st. and Kedzie Ave.
 Blue Island Illinois
 Phone: Mr. Schultz (385-5000)
 One vacuum pickup truck 2 ton
- C. Howard Morris Inc.
 6153 Columbia Ave.
 Hammond, Indiana
 Mr. Truppe 219-933-7466
 Mr. Smith 312-734-5889
 Available for rent 24 hrs a day. (Fee includes 3 operators)
 One vacuum truck 200 H.P.
- D. American Oil Co.
 East Chicago, Indiana
 Mr. Windhauser 219-659-2700 ext 216
 Nights and Weekends 219-397-4039
 Not always available
 One vacuum truck 22,760 lbs.
 One self-propelled skimmer 2,750 lbs.



- E. Self propelled skimmer
 American Oil Co. Riley Rd. and Ind. Harbor Ship
 Canal, East Chicago, Ind.
 Phone: Mr. Windhauser 219-659-2700 ext. 216
 FTS 219-932-5500
 Nights and Weekends: 219-397-4039 or 219-659-2700 ext 343
- F. One (1) oil skimmer, 750 lbs.;
 Two (2) tank trucks, 2000 gals. capacity.
 One (1) vacuum truck, 1000 gals. capacity;
 Eighty (80) tons straw, long wheat
 The Marson Corporation, 327 S. La Salle St.
 Chicago, Ill.
 Phone: John D. Harper 312-741-9047 (24 hrs)
 Note: Equipment normally for hire

4. CLEVELAND

- A. Hirth Oil Co.
 2890 E. 83rd
 7 trucks (4500 gals.) and pumps
- B. USHER Waste Oil
 2205 W. 3rd
 216-861-1907
 10 trucks (5-8000 gal.) and pumps
- C. P and K Oil Service
 6929 Detroit Ave.
 216-961-6496
 4 trucks (1500 gal) and pumps
- D. Shell Oil 2201 W. 3rd 216-861-6509 10 trucks (8-9000 gal.)
- E. Harbor Commissioner 216-694-3390 One floating Skimmer



F. Gulf Oil Co. Inc., 250 Jefferson Ave., Cleveland, Ohio 44113 Phone: 216-861-0755 7 tank trucks

5. DETROIT

- A. Ford River Rouge Plant
 One Floating type skimmer,
 Transportable by air
- B. Marine Pollution Control Corp.
 214 Randolph Street,
 Detroit, Michigan
 One floating type skimmer
 Transportable by truck but not by air

6. DULUTH

- A. None
- 7. LUDINGTON
 - A. None
- 8. MILWAUKEE
 - A. None
- 9. SAULT STE MARIE
 - A. None

10. TOLEDO

A. Sun Oil Co.

One portable electric explosion proof loating saucer skimmer



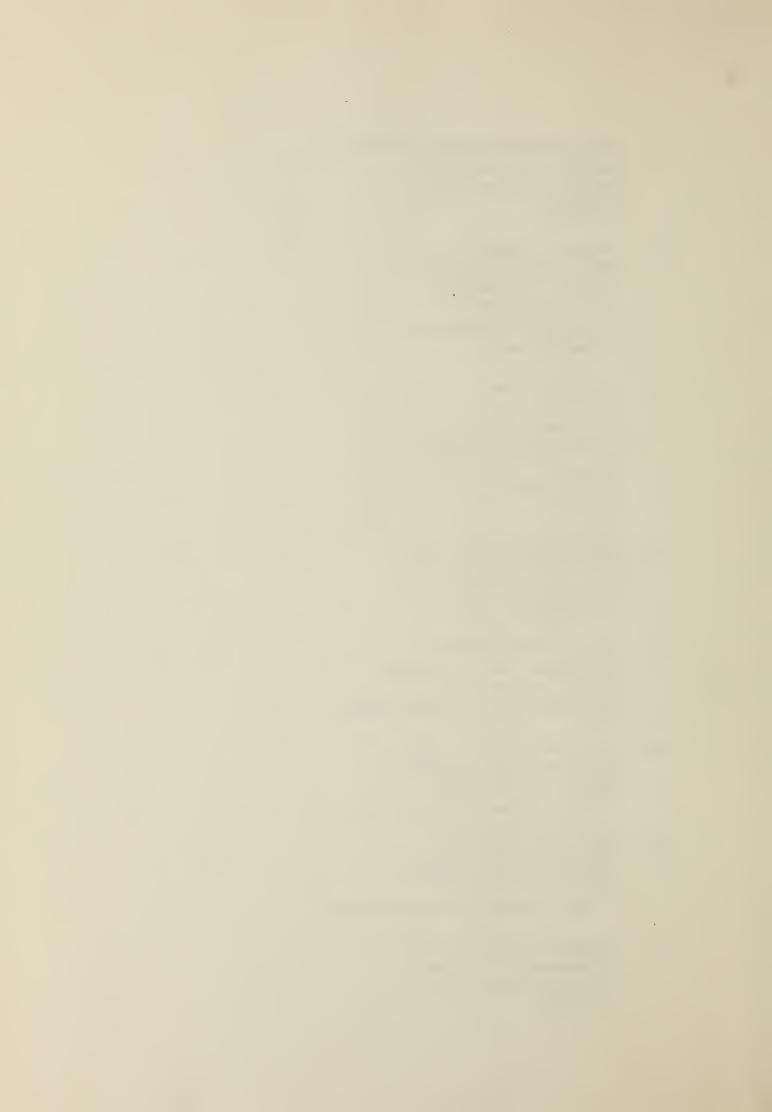
MISCELLANEOUS

1. OSWEGO

- A. Camp Drum
 Watertown, New York
 Phone: 315-SU 6900
 Aircraft and Vehicles.
- B. St. Lawrence Seaway
 Pilot Assoc.
 Cape Vincent, New York
 Phone: 315-014-4900
 2 Launches.
- C. St. Lawrence Seaway
 Development Corp.
 Massena, New York.
 Phone: 315-764-0271
 Tub Robinson Bay
 Barge and Crane
 40' utility boat.
- D. N.Y. State Police Station Theresa Road Watertown, N.Y. Phone: 315-782-2112 17' boat and scuba divers
- E. Jefferson County Sheriff 311 N. Massey St. Watertown, N.Y. Phone: 315-788-1441 14' skiff and scuba diver
- F. Association Island YMCA Henderson Harbor, New York Phone: 315-435-5022 56' LCM
- G. Northern Yachts Inc.
 Henderson Harbor, New York.
 Phone: 315-435-5421
 28' work boat
 20 ton travel life, underwater
 welding equipement



- H. Sodus Point Volunteer Fire Dept. Sodus Point, New York Phone: 315-483-9494 1 DUKW
- I. Stewart S. Sill Sr.,
 Sodus Point, New York,
 Phone: 315-483-7374
 65' Tug (320 HP)
 Crane, 6 salvage pumps
 6 Portable pumps.
- J. Burcroff Marine
 Construction Inc.
 146 Washington St.,
 Puttneyville, New York
 Phone: 315-589-7131
 78' tug (Marion)
 36' tug
- K. Alexandria Bay Fire Dept. Alexandria Bay, New York Phone: 315-482-2345 1 Fire boat.
- L. Rogers Texaco Marina
 Alexandria Bay, New York
 Phone: 315-482-9461
 Work Boat and 3 salvage pumps.
- M. Hutchinsons Boat Works
 Alexandria Bay, New York
 Phone: 315-482-9931
 1 work boat and 1 salvage pump.
- N. Bonnie Castle Marina
 Alexandria Bay, New York
 Phone: 315-482-9975
 1 work boat and 1 salvage pump.
- O. Ogdensburg Fire Dept.
 Ogdensburg, New York
 Phone: 315-393-1010
 1 DUKW



- P. Ogdensburg Police Dept. Ogdensburg, New York Phone: 315-393-1551 16' boat.
- Q. Massena Fire Dept. Massena, New York Phone: 315-769-2464 1 DUKW
- R. Metropolitan Oil Company Massena, New York Phone: 315-764-0521 Tank trucks.
- S. Oswego County Sheriff Dept.
 Oswego, New York
 Phone: 343-5490 or 343-8331
 4 boats
- T. Oswego Fire Dept. 112 E. Bridge St., Oswego, New York Phone: 343-1313 6 Scuba divers.
- U. Slyvan Beach State Police Slyvan Beach Slyvan Beach, New York Phone: 762-4441 1 boat
- V. Pirates Cove Marina
 Phoenix, New York
 Phone: 695-8707
 35' cruiser and 2 scuba divers.

2. BUFFALO

A. None



3. CLEVELAND

- A. U.S. Army Corps of Engineers Phone: 216-621-7962
 Barges.
- B. U.S. Army Corps of Engineers Phone: 216-621-7962
 (Benson Hanserman) via Harbor Master 216-621-3256
 Ind. Waste Bureau 216-694-3320
 Div. Water Poll. Control
 2785 Broadway, Cleveland (Ray Rath)
 Cleveland, Fire Department 216-621-1212
 Boats: Rowboat and 50' launch 4 (40')
 1 (18' on trailer)
- C. Scuba Diver
 John Bering
 Phone: 216-651-5322

4. DETROIT

A. Marine Pollution Control Co.

214 Randolph Street

Detroit, Michigan.

Phone: 313-931-1035

1 36' x 12' work barge (self-propelled)

Permanent equipment aboard:

4 630 gal. Settling Tanks (barge has a 6000 gal. per hr. suction

1 Air Compressor

1 3" vacuum pump and resvior

3 2" Cent. pumps

1 4" Cent. pump

1 3" Dia. pump

1 1 " Air pump (with chemical proportion 100' various size hoses 1000' (36" length oil booms

4 skimmer adapters

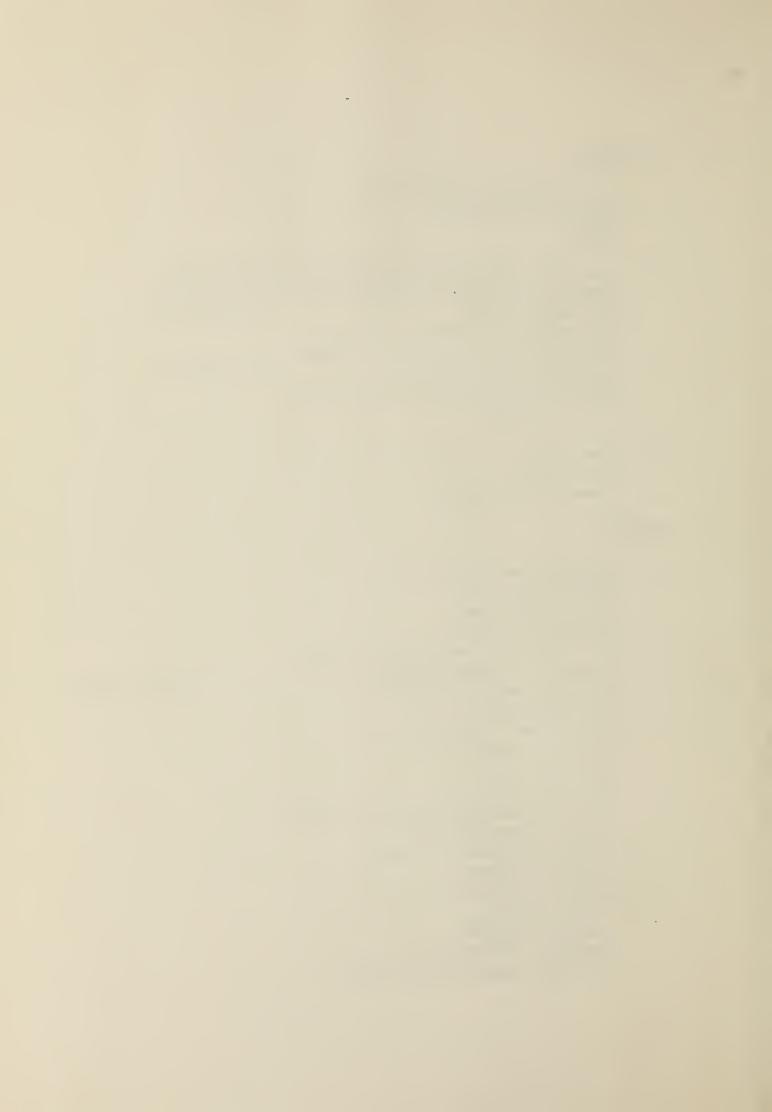
1 2000 watt Generator

5 Walkie Talkies

l Mobile Telephone

400 gals. oil dispersant

12' \times 20' Debris hauling space



1 MSA Explosive meter

2 Lamb Sir movers

1 Air Cub oxygen unit

1 2 mask MSA fresh air hand operated unit

10 Buoy markers

Allied equipment:

1 12' Stake truck with barrel hoist

1 1650 gal. Vacuum Tank Truck

1 1650 gal. Tank Truck with pump

3 4" Cent. pumps

1 Double trailer tanker unit (8500 gal. capacity)

1 27' Fiberglass hull power boat (twin screw) (for utility)

UHF and VH radio, fathometer.

1 15' Outboard and oar powered Work Dingy

800' various sizes Suction hose

1000' various size discharger Mill hose

Lab. facilities to determine B.S. and W contents of

petroleum products and flash points.

1,000 ft. Papper Cylinder boom material

200' Standard Slickbar.

5. CHICAGO

A. American Oil Company

Riley Road and Indiana Harbor Ship Canal, East Chicago, Ind. Phone: Mr. Windhauser 219-659-2700, Ext. 214 FTS 219-932-5500 Nights and Weekends) 219-397-4039 or 219-659-2700, Ext. 343 One 16' with 9 1/2 h.p. motor One air line throwing gun, 30 lb.

B. Cities Service Oil Co.

Columbus Dr., East Chicago, Indiana

Phone: Mr. McCarthy Phone: 219-397-656-Ext. 342

Mr. Knight 219-397-6560 Ext. 253 FTS 219-932-5500

Nights and weekends 219-397-6560 (ask for foreman)

One Row Boat and Trailer

C. Mobil Oil Co., Indianapolis Blvd., East Chicago, Indiana

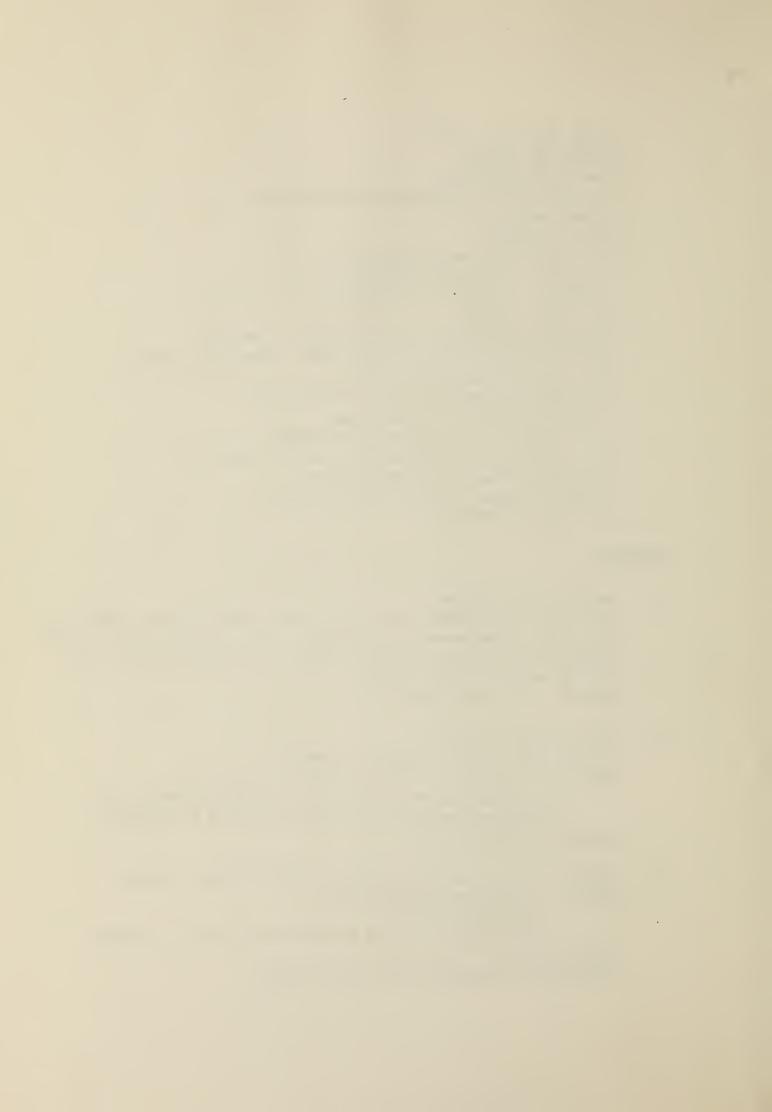
Phone: Mr. Murray 219-932-5500

FTS 219-932-5500

Nights and Weekends 219-397-1950 (ask for foreman)

One row boat.

Two air line throwing guns, 30 lbs. each.

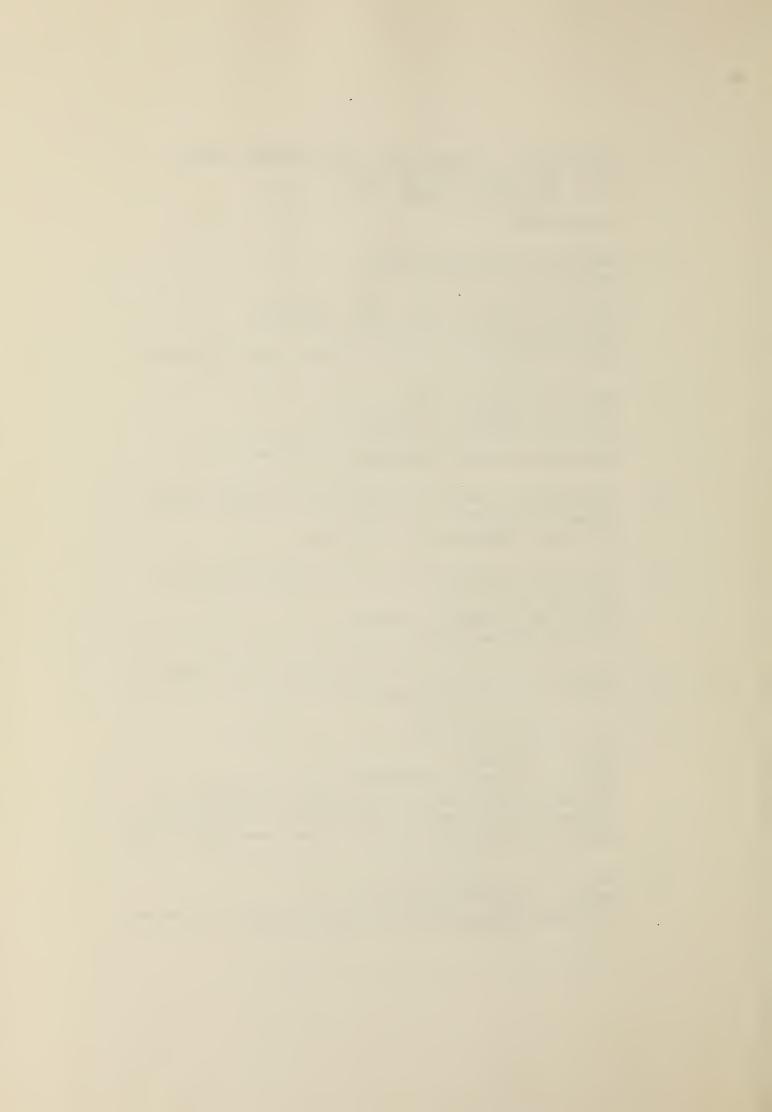


D. Shell Oil Co., Columbus Dr., East Chicago, Indiana Phone: Mr. Austin 219-845-4502 FTS 219-932-5500 One Row Boat.

E. Humble Oil and Refining Co.
3301 So. California Ave.
Chicago, Ill.
Phone: Mr. Game, Supt., (312) 523-8100
Night Phone: (312) 247-2615
One 14' aluminum boat with 3 1/2 h.p. motor, 105 lbs.

F. Walter Kidde and Co. Inc.
1314 S. Randolph St., Chicago, Ill.
Phone: Mr. Vonckx 352-1910.
Two gasoline driver generators, 161 lbs ea.

- G. The Texas Co., 3600 Canal St., East Chicago, Indiana Phone: Mr. Eaton: 210-397-0908
 Two Foamite Generators, 300 lbs. ea.
- H. Clarke Oil and Refining Co., 131 St. and Kedzie Ave., Blue Island, Ill. Phone: Mr. Schultz 385-5000 Two portable generators
- J. Pure Oil Co., Lemont, Ill.
 Phone: Mr. Gerhary 257-2201
 12 Foamite generators for mixing chemicals, 300 lbs.ea.

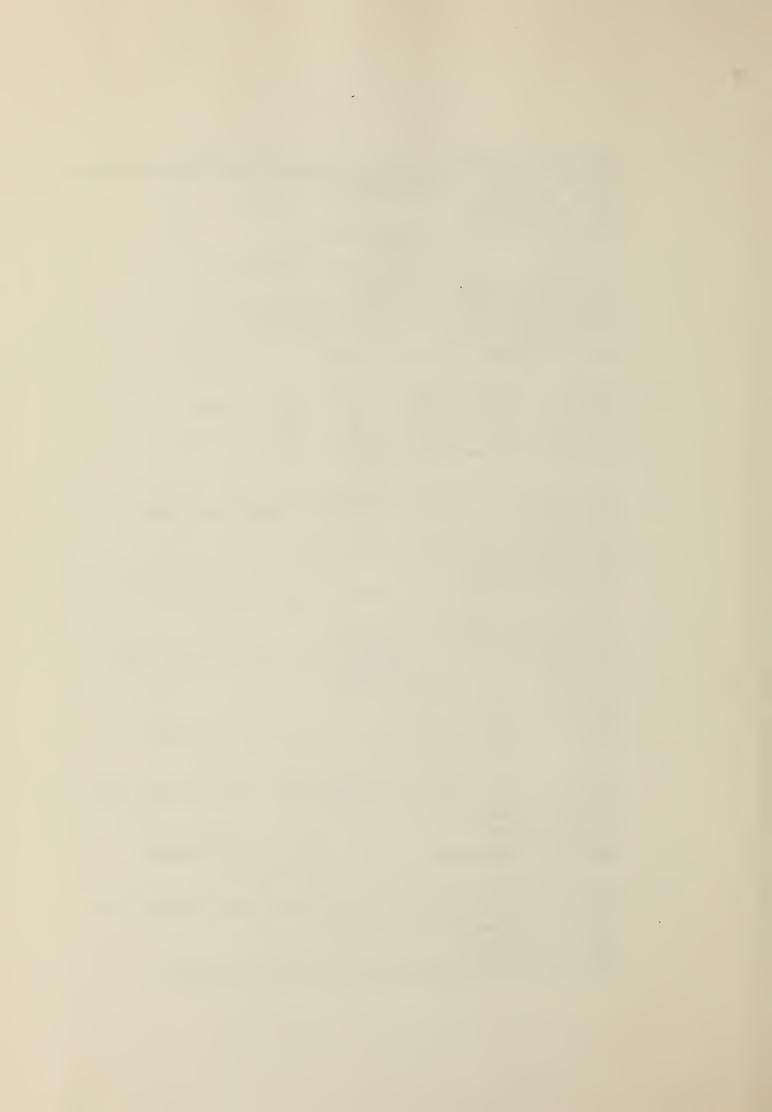


- K. One (1) 12' Row boat Phillips Pipeline Co., 400 E. Columbus, East Chicago, Indiana Phone: Mr. Staton 219-397-6666. FTS 219-932-5500 Nights and Weekends 219-397-6666
- L. One (1) Barge, tank class D. USCG, 10,000 gal. Seven (7) water craft, self prop.

 Marsan Corp, 327 S. LaSalle St., Chicago, Ill.

 Phone: John D. Harper 312-741-9047 (24 Hrs).

 Note: Equipment normally for hire.
- M. One (1) 12' boat with oars
 Texaco Co., 3600 Canal St., East Chicago, Ind.
 Phone: Mr. Eaton 219-397-0908
 Nights and Weekends 219-838-8881
- N. Four (4) Mobile, Four (4) portable, 153.230 MC American Oil Co., Riley Rd. and Ind. Harbor Ship Canal, East Chicago, Ind. Phone: 219-659-2700 Ext. 214 or 216. FTS 219-932-5500 Nights and Weekends 219-397-4039 or 219-659-2700 Ext. 343.
- O. Five (5), 158.310 MC Mobile units
 Cities Service Oil Co., Columbus Dr., East Chicago, Ind.
 Phone: Mr. McCarty 219-397-6560, Ext. 342
 Mr. Knight 219-397-6560, Ext 253
 FTS 219-932-5500
 Nights and Weekends 219-397-6560 (ask for foreman)
- P. Five (5) Mobile, Three (3) portable, 153.110 MC
 Mobile Oil Co., 3821 Indianapolis Blvd., East Chicago, Ind.
 Phone: Mr. Murray 219-397-1950
 FTS 219-932-5500
 Nights and Weekends 219-397-1950 (ask for foreman)
- Q. Two (2) portable units, 26.72 and 27.175 MC
 Phillips Pipeline Co., 400 E. Columbus, East Chicago, Ind.
 Phone: Mr. Stanton 219-397-6666
 FTS 219-932-5500
 Nights and Weekends 219-397-6666 (ask for leadman)



- R. Several Mobile, Twenty (20 Portable Units 153.17 MC Sinclair Refining Co., 3500 Indianapolis Blvd., East Chicago, Ind. Phone: 219-397-0924 (ask for shift foreman) FTS 219-932-5500
- S. Mr. George A. Hale Skokie, Ill. Phone: 312-677-6200 (Days) Nights and Weekends 312-257-2171
- T. Mr. G.J. Gerharz, Lemont, Ill.
 Phone: 312-257-2201 (Days)
 Nights and Weekends 312-257-2171
- U. One (1) air powered line throwing gun Texaco Co., 3600 Canal St., East Chicago, Ind. Phone: Mr. Eaton 219-397-0908 Nights and Weekends 219-838-8881
- V. Three (3) straw mulchers, Tinn type, 800 lbs. ea.
 One (1) Harvester for oil soaked straw, 3200 lbs.
 Three (3) inflatable bags, 900 gal. rubber, Goodyear, 250 lb. ea.
 The Marsan Corp., 327 S. LaSalle St., Chicago, Ill.
 Phone: John D. Harper 312-741-9047 (24 hrs.)
 Note: Equipment normally for hire

6. MILWAUKEE

- A. Milwaukee Harbor Commission
 Milwaukee, Wisconsin
 Phone: 414-276-9355
 45' tug with JANSOLV 60 and spraying equipment.
- B. Wisconsin Department of Natural Resources Madison, Wisconsin Phone: 608-266-3221
 Oil testing equipment.

7. LUDINGTON

A. None



8. SAULT STE. MARIE

A. None

9. DULUTH

A. Marine Fueling, Inc.
Foot of Hill Avenue
Superior, Wisconsin
Phone: 727-3380 (Sig Mattson-525-1601 (Home Phone)
One Self-propelled tank barge WILLIAM H. BENNETT
64,000 gal. capacity, grades D and E Pumping capacity 1,050
gal./min.
Non-self-propelled tank barge K-1013,000 gal. capacity grades
D and E pumping capacity 60 gal./min.
2,000 gal. tank truck with pumping equipment.

- B. Murphy Oil Co.
 Superior Refinery
 Superior, Wisconsin
 Walter Buck Phone: 727-6828 (24 hour phone)
 2000 gal. tank truck with pumping equipment
- C. Great Northern Refinery
 P.O. Box 3596
 Pine Bend, Minnesota
 Jud Hester, Plant Supervisor
 Phone: 612-222-4721 (24 Hour phone)
 Common carrier, 24 hour service
 Portable surface pump
 Weight 300 lbs. (approximate)
 70 foot suction hose, discharge hose with flange connection.

10. TOLEDO

A. Toledo Police Department
Toledo, Ohio 43604
Phone: 419-241-1221
One 26' boat equipped with a P-500 Pump (max wt. 200 lbs)
(capacity 500 GPM at 100 PSI large colume medium pressure)
Hose: 100 feet of 1 1/2 - all purpose nozzle
Varying supply of a chemical emulsifying agent for dispersal

of oil spills. (20 gals. cover 1000 square feet)



B. Toledo Fire Department Toledo, Ohio 43604 Phone: 419-232-4141 One Fire Boat Hose 300 ft. 2 1/2" hose; 300 ft. 1 1/2" hose. 1 foam eductor foam 2 - 5 gal cans.

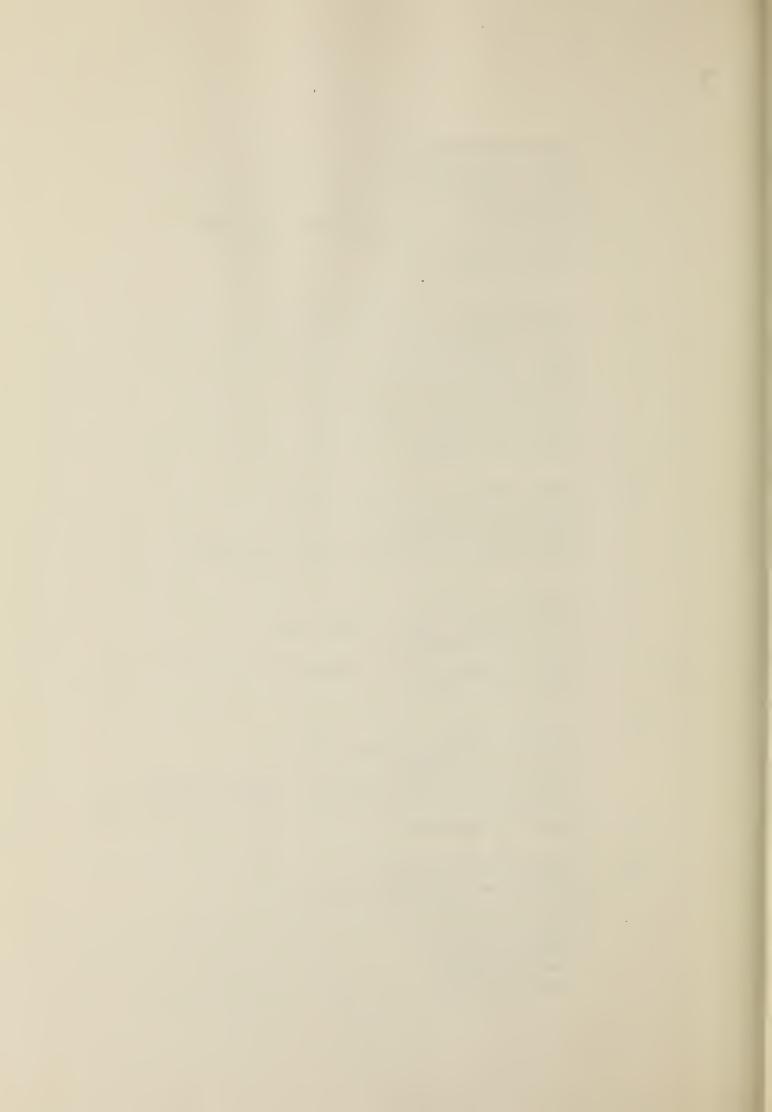
C. Gulf Oil Co.
2935 Front Street, Toledo, Ohio
Phone: 419-729-3871
Hose: 1200 feet 2 1/2"
One fully equipped fire truck.
One 350 lbs DC
One 12' aluminum rowboat
One fixed air drive

D. Shell Oil Co.
2844 Summit Street, Toledo, Ohio
Phone: 419-726-0565
Foxed Systems: Chemical foam - 27,000 gal.
(2) hose: 400'.

E. Standard Oil Co.
Foot of Millard Street, Toledo, Ohio
Phone: 419-248-1461
Fixed Systems: Chemical foam-2100 lb type B.
Hose: 700' 2 1/2"

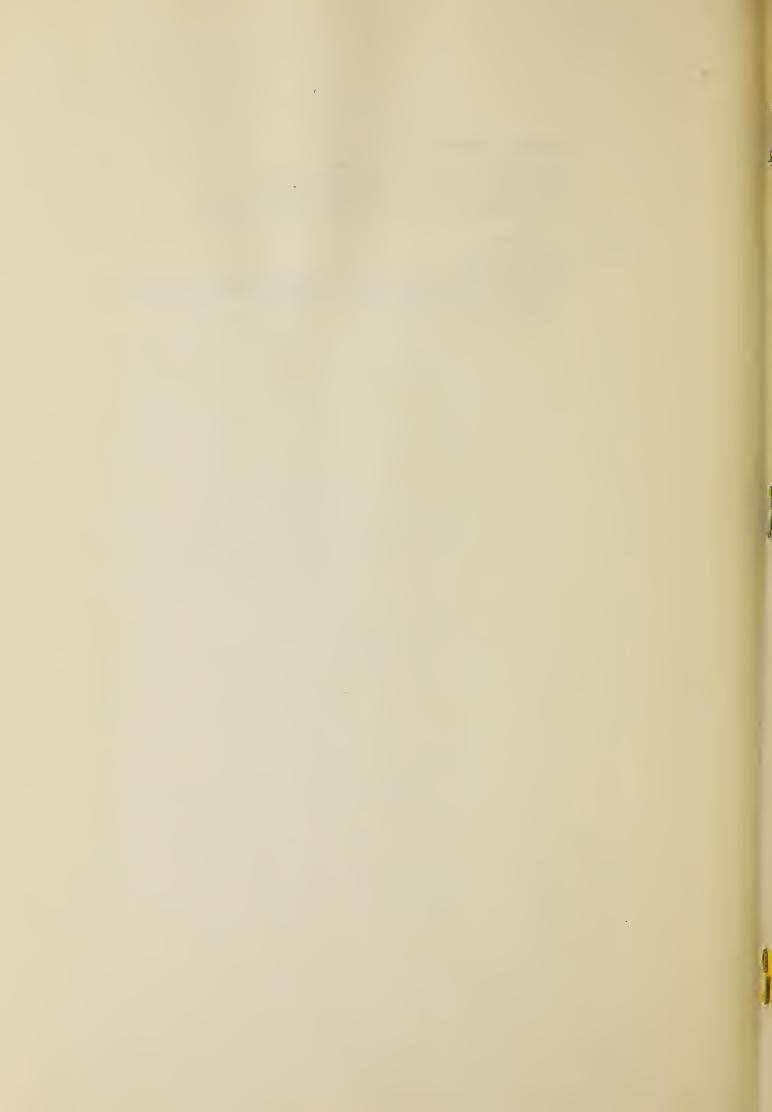
F. Ashland Oil Co.
3147 Jessie Street, Toledo, Ohio
Phone: 419-726-2867
Fixed Systems: Chemical foam - 1445 gal. type A.
1445 gal. type B. Dry Chemical - 750 gal. single type.
Hose: 200 feet 2 1/2'

G. Commercial Oil Service
5911 Seaman Rd. Toledo, Ohio
Phone: 419-836-3694 or 691-0617
4 tank trucks
1 each 5,700 gal.
2 each 1,600 gal.
1 each 2,600 gal.



1 each 1,600 gal.
1 gear pump 2" - 3" suction
(Portable - can be used with Item #3)
10 ft perforated vacuum pipe for oil pick-up

H. Sun Oil Co.
Toledo, Ohio
(4) 12 foot aluminum hand propelled boats for handling slix bar spill boom



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DATE DUE	BORROWER'S NAME

Date Due

Z/5862.2/S65/S65/MOE/1971
Ontario Water Resources Co
Interim province of
Ontaio contingency aqwz

c.1 a aa



Environment Ontario

Laboratory Library
125 Resources Rd.
Etobicoke, Ontario M9P 3V8
Canada

